

NOTE ON THE CONSIDERATION OF THE ENVIRONMENTAL INFORMATION GATHERED IN RESPECT OF THE APPLICATION FOR CONSENT TO AUTHORISE THE CONSTRUCTION AND OPERATION OF THE PROPOSED NEW NUCLEAR POWER STATION KNOWN AS HINKLEY POINT C

Introduction

1. NNB Generation Company Limited (“the Applicant”) applied on 31 October 2011 under the Planning Act 2008 for consent to authorise the construction and operation of the proposed new 3260MW nuclear power station to be known as Hinkley Point C (“HPC”) and associated development. On 17 February 2012, the Chair of the Infrastructure Planning Commission appointed a three member Panel (“the Panel”) as the Examining Authority for the application (“the Examining Authority”). Two additional members to the Panel were appointed in March and April 2012. The examination of the application began on 21 March 2012 and was completed on 21 September 2012. The Panel submitted its report of the examination to the Secretary of State on 19 December 2012.
2. Under regulation 3 of The Infrastructure Planning (Environmental Impact Assessment) Regulations 2009 (as amended), the Secretary of State must not make an order granting development consent for “EIA development” (as defined in those regulations) unless “he has first taken the environmental information¹ into consideration” and must state in his decision that he has done so. The application for HPC is EIA development..
3. Because of the unprecedented amount of environmental information which has been produced to inform the decision in respect of HPC and the associated development, it was decided that, for the purposes of increasing clarity in respect of the decision-making process, it would be helpful to produce a short summary of the likely significant effects contained in the Applicant’s Environmental Statement and of the relevant consideration of those effects contained in the Panel’s Report to the Secretary of State.
4. This document is not intended to be a comprehensive assessment of all the potential environmental effects of HPC and the associated development. It is intended to summarise briefly those main environmental issues where effects have been identified and which therefore the Secretary of State has given consideration to but it must be read in conjunction with the report of the Panel, who examined the application and the environmental information lodged in connection with the application, on behalf of the Secretary of State. That report will have formed

¹ “environmental information” means the environmental statement including any further information and any other information, any representations made by anybody about the environmental effects of the development and of any associated development

the basis of the Secretary of State's consideration of the planning balance of the environmental issues. It should also be read in conjunction with the decision letter and Habitats Regulations Assessment in respect of the HPC application. Those documents contain the Secretary of State's conclusions on the assessment of environmental issues, especially on matters where he may have either reached different conclusions or required different mitigation to that proposed either by the Applicant or the Examining Authority and in his role as Competent Authority pursuant to Regulation 61 of the Conservation of Habitats and Species Regulations 2010 (as amended)..

5. In respect of the Habitats Regulations Assessment, the Secretary of State has assessed the implications of the whole application including the temporary jetty, the associated development and related marine works and water discharge activities, as recommended by the Panel. He has considered the activities associated with the construction, operation and decommissioning of the works and how they might impact on the conservation objectives of four European sites, namely, the Severn Estuary Special Area of Conservation ("SAC")/Ramsar; the Severn Estuary Special Protection Area ("SPA")/Ramsar; the Somerset Moors and Levels SPA/Ramsar and the Exmoor Oakwoods and Quantocks SAC. This has included an assessment of how the different elements of HPC may interact with each other and how potential impacts may act in combination with other plans and projects, such as the existing Hinkley Point B power station. The Secretary of State considers that there will be no adverse effects on the integrity any of the above sites as a result of HPC alone or in combination with other plans and projects. This conclusion is based on the inclusion of certain mitigation measures in the Development Consent Order and conditions in the relevant Environment Agency permits.
6. The decision letter also includes conclusions on any environmental information which was received following the close of the examination and which raised new issues which were not considered previously by the Examining Authority.
7. The Secretary of State also notes other authorities (including the Office for Nuclear Regulation, the Environment Agency and the Marine Management Organisation) are responsible for environmental assessment, to the extent that it is required, for other consents required for the HPC project.
8. The potential environmental impacts associated with each of the constituent parts of the development are summarised below:

Hinkley Point C new nuclear power station

Socio-economic

Construction

9. During the construction phase there will be effects on the local labour market, economy, availability of accommodation and provision of public services due to the large workforce required for the construction of the project (20,000 to 25,000 posts spread over a period of approximately 7 years with a peak of 5,600 workers in the third year of construction). This will bring economic benefits to the area and employment opportunities for local people. Existing spare accommodation alongside the proposed new campus-based accommodation is expected to cover demand for accommodation from non-home based workers. Because of the expected profile of the workforce, single people of working age, increased demand on local services is expected to be minimal but that the applicant will nevertheless work with local public service providers to identify and mitigate potential impacts. The applicant also proposes a Neighbourhood Support Scheme for residents immediately around the HPC site where the concentration of workers may have an impact on amenity.

Operational Phase

10. HPC, when completed, is expected to regularly employ around 900 people with indirect employment accounting for a further 360 jobs. The jobs at HPC will include a significant proportion which are highly skilled and well paid. The local area will benefit from the annual expenditure of these workers. In addition to the regular workforce, planned outages will raise the workforce to up to 1,000.

Tourism

11. It is expected that the provision of the proposed Public Information Centre on the HPC site is expected to attract up to 250,000 visitors a year. Many of these visitors will be from outside the immediate area. This has the potential for deterring regular visitors to the area because of the increase in traffic movements, particularly during the period prior to the completion of the proposed road improvements (timetabled to be a maximum of 22 months).

Transport

Construction and operational impacts

12. The Environmental Statement ("ES") considers the impacts of the additional transport generated by HPC including the associated development. The key impacts identified in the ES are driver delay, severance and pedestrian amenity. Noise and air quality impacts are addressed separately. The ES sets out the routes that construction traffic (HGVs and construction workers travelling to site) will follow. It considers three representative years, 2013 (construction

commences), 2016 (peak construction) and 2021 (HPC operational/removal of some associated development).

13. During the initial stages of construction of the associated developments, in particular the Cannington bypass, the park and ride facilities and the construction worker accommodation campuses, there will a moderate to high impact of local residents. However these impacts will be reduced to slight once the Cannington bypass is constructed and in use which is expected to take a maximum of 22 months
14. In 2021, although most of HPC construction is expected to be completed there would be impacts from the removal and restoration of associated development.
15. In respect of particular locations, the expected impacts are:
 - Bridgwater – impacts during construction of accommodation campuses due to HGVs accessing local road network. However, most HGVs would be routed on 'A' roads.
 - M5 Junction 23 and 24 (park and ride, freight management facilities, courier consolidation and induction centres) – limited effects because most HGVs would be using the motorway.
 - Cannington – park and ride construction traffic would not use the village. During construction of the bypass, there would be some HGV movement through the village, estimated to be less than 20 vehicles a day.
 - It was initially estimated that there would be 300 HGV movements per day between the freight laydown facility at Combwich and the HPC site, but this is now restricted to only take place after the Cannington bypass is in use.
 - Combwich – construction of the freight facility would not increase HGV traffic through the village as all such traffic has to be routed from the Combwich Wharf via a dedicated access road which does not go through the village or impact on residential properties
 - Williton – park and ride site is an existing lorry park and depot so only limited HGV movement required for construction and restoration. Increasing number of buses through Williton.

Noise and vibration

Construction

16. Greatest potential impacts are identified as short term activities associated with emergency access road construction and landscaping close to southern site boundary. These impacts would be of limited duration (maximum being 22 months for the construction of the Cannington bypass) but could result in increase of noise at neighbouring properties.
17. All other construction activities would meet agreed noise limits.

18. Accommodation campuses will be designed to reduce local noise impacts.
19. A Noise and Vibration Management Plan would be implemented during construction.
20. Most significant road traffic noise impacts are in Cannington prior to the construction of the bypass. Other significant impacts would occur along the A39 between Cannington and Bridgwater. The applicant is offering a scheme of noise insulation support to the most affected properties.

Operation

21. Commissioning tests on each reactor unit including high pressures steam release would be audible at neighbouring properties. These tests would of very short duration and only during the daytime.
22. Overall operational noise level is modelled as being within an agreed threshold.
23. Traffic noise associated with the operation of HPC would not be significant.

Air quality

Construction

24. The key impacts on air quality of the construction of HPC are likely to be dust and particulate generation and dispersal. Because of the distance of the site from most potential receptors impacts are not considered to be significant although two properties may be affected. The Applicant proposes a range of control measures as set out in an Air Quality Management Plan to minimise both dust and particulate generation and dust dispersal to the boundary of the site.
25. Emissions from on-site equipment are not predicted to be significant. Traffic emissions during construction have been modelled and are not considered to be significant.
26. For ecological receptors, there may be very limited localised exceedences of nitrogen dioxide air quality pollutant criteria within the Bridgwater Bat Site of Special Scientific Interest and the Hinkley County Wildlife Site.
27. Although there may be emissions of air pollutants from plant and equipment at start-up and from back-up power generation, no exceedences of air quality standards designed to protect public health are predicted to occur.

Operation

28. Modelling predicts no significant impact on human receptors from traffic during the operational phase.

Soils and land use

Construction

29. There is expected to be both permanent and temporary loss of agricultural land and of soils stripped as part of the site preparation works. The loss of agricultural land (19.8ha) is an extremely small proportion of such land in Somerset.
30. Stripped and stored soil materials would be reused after completion of construction of HPC. New areas of agricultural land and other habitats would be created. A Soil Management Plan would include measures to ensure soil quality is maintained.

Operation

31. Normal operation of HPC would not prevent agricultural activity on land adjacent to the site or lead to other impacts on soil or land use.

Geology and land contamination

Construction

32. Investigations have not revealed any significant radiochemical or non-radiochemical contamination at the development site. Part of the area did have Asbestos Containing Materials present and remediation was expected to be completed early in 2012.
33. Some cliff exposures will be lost as a result of the sea wall but these formations are of limited significance.
34. No significant impacts on receptors are anticipated with respect to land contamination.

Operation

35. During operation, pollution prevention measures required by the Environmental Permit, would be used to control the risk of land contamination from potentially contaminative material stored on site. This would reduce the potential for accidental releases of such material.

Groundwater

Construction

36. Deep water excavations needed for foundations etc. will need to be dewatered. This would affect groundwater levels over a period of years leading to localised drawdown. It is anticipated that this drawdown would reach outside the HPC site into the Site of Hinkley Point A nuclear power station ("HPA"). Although there is some groundwater contamination at HPA, it is not expected that the dewatering will result in contamination being drawn into the HPC site. Nor is there expected to be any increase in salinity. Groundwater collected by dewatering will be discharged into the Bristol Channel. It will be monitored for contamination and treated as necessary prior to

discharge. Modelling suggests there will be no other significant impacts on groundwater but the applicant will undertake a precautionary monitoring programme.

Operation

37. A passive drainage around the Nuclear Island will control groundwater levels. This influence on groundwater levels will be localised and no impacts outside the HPC site are expected.

Surface water

Construction

38. Various activities have been identified as having the potential to cause elevated surface water run-off and hence increased discharges from the site, increased flood risk, increased soil erosion, changes to hydraulic conditions of Holford Stream and contaminated surface run-off affecting water quality.
39. The surface water drainage system will be compliant with legislation and there will be a range of mitigation and controls in respect of sewage effluent, reduction of potential for sediment laden water, and monitoring for and treatment of elevated nutrient levels, low pH and accidental contamination.

Flood risk

40. There is considered to be no flood risk to the site during construction and operation. The main site has been designed to accommodate risks of less than 0.01% Annual Exceedence Probability. There is some potential for the main access road to flood in the future but access to site would still be available via a different route.
41. Taking into account climate change predictions, some local properties may be impacted by flooding in the future. HPC would slightly increase flood levels at those properties. The Applicant will work with the Environment Agency on a plan to manage flood risk at those properties in the future.

Operation

42. There are not considered to be any significant surface water impacts during the operation phase of HPC.

Coastal hydrodynamics and geomorphology

Construction

43. Potential construction impacts on coastal hydrodynamics and geomorphology may be caused by the positioning of the new sea wall, drainage across the shore, the temporary jetty, shafts for the

cooling water intake and outfall, the discharge point for fish recovery system and dredging for the temporary jetty. Impacts are assessed as being small scale as they would only interfere slightly with existing dynamic coastal processes. Nonetheless, mitigation measures will be taken.

Operation

44. Potential operational impacts on coastal hydrodynamics and geomorphology may be caused by the presence of the new sea wall, abstraction and discharge of cooling water, and new intake and outfall structures on the seabed. Although it is considered that overall HPC would not have a discernible effect on coastal hydrodynamics and geomorphology, monitoring will be undertaken to maintain an understanding of processes and to adjust mitigation measures as may be necessary.

Marine water and sediment quality

Construction

45. Assessments of potential impacts of construction related discharges and excavation of cooling water tunnels concluded that there would be no significant impact on marine water and sediment quality.

Operation

46. The most significant potential impact on marine water is likely to be thermal discharge via the outfall. The impact of HPC on its own and in-combination with HPB is assessed as minor. Chlorination (to clean pipework) would have a minor impact.

Marine ecology

Construction

47. Construction works and placement of structures in the marine environment will result in the loss of a small amount of intertidal and subtidal habitat. This loss will affect two species of conservation interest, a red turf-forming alga (*Corallina*) and a tube worm (*Sabellaria*) but the loss is not considered to be significant. The delivery of rock armour for the sea wall is likely to have a significant impact. Mitigation will be put in place for that and also for piling which otherwise could have an adverse impact on certain fishes and cetaceans.

Operation

48. The thermal plume from the cooling water discharge was assessed as having a negligible effect on *Corallina* and *Sabellaria* and the crustacean, *Crangon Crangon* and minor impact on non-migratory and migratory fish and on the invertebrate *Macoma balthica*. Operational waste streams are assessed as having a small impact on intertidal and subtidal habitats with the exception of residual biocide on intertidal habitats where the effect is considered to be moderate.

Mitigation is based on a risk-based dosing strategy. Losses of marine organisms due to entrainment in the cooling water system were predicted as a minor impact. Mitigation will be through a fish recovery and return system, acoustic fish deterrent devices and low velocity intake.

Terrestrial Ecology

Construction

49. The loss of part of the Hinkley County Wildlife Site and of flower-rich calcareous grassland with it will be a significant impact. Habitat creation measures during construction means that only a minor impact is predicted on other wildlife. A similar impact is predicted on wintering and passage waterbirds due to small numbers and infrequent occurrence close to HPC. Landscaping once construction is complete will include habitat creation (calcareous grassland, woodland and hedgerows).

Operation

50. Once site restoration is complete an Integrated Land Management Plan will implement a programme of monitoring and management control in respect of selected species and habitats (including breeding birds, butterflies, reptiles and bats, and hedgerows and grassland).

Radiological

Construction

51. Radiological risk to workers and the public during construction is assessed as very low.

Operation

52. The assessment of discharges from the Hinkley Power Station Complex (The A, B and proposed C stations) are calculated to be well below the regulatory dose constraint. Assessment of impacts of discharges of radioactive gases and liquids found that direct radiation dose from HPC is well below both regulatory dose constraints and the statutory dose limit. Short-term dose (large discharges over a short time) assessment found that it would be significantly less than relevant dose criteria.
53. The impacts on non-human species were assessed as being below relevant screening levels and therefore impacts are considered low.

Landscape and visual

Construction

54. Construction would result in loss of locally significant landscape features although key features (Green Land ridge and mature site boundary vegetation) would be retained. There would be a temporary significant adverse change to local landscape and seascape character. Screening would be undertaken to reduce adverse impacts. Temporary significant adverse visual impacts (through construction plant and equipment) would occur at Shurton, Burton, Knighton, Wick and other local properties and for users of elevated land. Visual impacts would decrease over distance.

Operation

55. Although removal of construction plant and equipment would decrease landscape and visual impacts, significant local visual impacts would remain due to the size of the HPC development. Some of the impacts would decrease slightly when planting matures. There would be a moderate adverse visual impact for receptors in the north-eastern part of the Quantock Hills Area of Outstanding Natural Beauty (AONB)..

Historic environment

Construction

56. Topsoil stripping and mechanical excavation will remove heritage assets. Mitigation will be provided by archaeological investigation in advance of construction. The construction of the temporary jetty may result in significant impacts to marine archaeology as the importance of the deposits is high. The Applicant has therefore implemented a programme of research in respect of the Holocene deposits. There will be a small physical impact on a section of Green Lane (a historic farm track).

Operation

57. The completed HPC development will have a significant impact on the settings of some designated heritage assets including Wick Barrow (as known as Pixies Mound) a Neolithic/Bronze Age burial mound, Grade II* Listed Fairfield Hall and Grade I Listed Court House. At a further distance, the settings of Iron Age and Bronze Age assets in the Quantock Hills would be significantly affected. Mitigation includes screen planting and landscaping although it would not be possible to negate all impacts.

Amenity and recreation

Construction

58. Public rights of way within the inner security fence would be obstructed and access prohibited where necessary for health and safety reasons. Mitigation includes diversions to rights of way and alternative routes. Overall a low impact is predicted.

Operation

59. Public rights of way within the site boundary would be permanently stopped up. However, diversions and network enhancements, and other improvements (e.g. permissive access to 100 hectares of land within the development site) would result in overall no significant impact.

Navigation

Construction

60. Risks associated with the construction and dismantling of the temporary jetty and construction of the cooling water intake and outfall would be managed through use of exclusion zones. Dredging, with appropriate mitigation measures, is assessed as having a low risk. Impacts on the Lilstock range firing area would be managed between the applicant and MOD. A temporary exclusion might be required to safeguard users of the River Parrett due to the presence of construction plant at Comwich Wharf.

Operation

61. Impacts on the Lilstock range firing area would be managed between the Applicant and MOD. The risks caused by the presence of maintenance vessels for the intake and outfall structures would be mitigated through various measures for commercial vessels. Operation impacts at the jetty would be mitigated by navigational lights and other measures.

Climate

62. The Application is made within the context of the Overarching National Policy Statement for Energy (EN-1). That document notes that to avoid the most dangerous impacts of climate change, the increase in average global temperatures must be kept to no more than 2°C, and that means global emissions of carbon dioxide must start falling as a matter of urgency. Nuclear power is a proven technology that is able to provide continuous low carbon generation, which will help to reduce the UK's dependence on imports of fossil fuels.

Bridgwater A Accommodation Campus (“Bridgwater A”)

Socio-economic

63. The main impact would be the creation of employment opportunities. The new workforce accommodated at Bridgwater A would provide benefit through expenditure for local businesses. Potential adverse impacts to community cohesion are difficult to assess but would be mitigated through a Community Safety Management Plan.

Noise and vibration

64. Construction noise and vibration would be mitigated through best practice techniques. Operational noise is not expected to be significant but impacts on residential dwellings would be controlled by active management of users of Bridgwater A.

Air quality

65. Impacts are associated with exhaust emissions from construction traffic, onsite plant and operational traffic. Measures to reduce emissions would be provided in the Air Quality Management Plan. Fugitive dust and particulates would be mitigated through dust management matters. Overall impacts with mitigation are considered low.

Geology, land contamination and groundwater

66. Site development would include remediation of areas identified as contaminated through previous industrial use.

Surface water

67. Potential impacts from run-off during the construction phase would be controlled by good construction practice and pollution prevention techniques. Sustainable drainage systems would control potential impacts from surface water and foul water discharges.

Landscape and visual

68. Following construction a landscape scheme would be implemented to reduce the impact of the views of the development from public vantage points, such as the AONB, Lighting would be visible from some public areas but it would be designed so as to minimise impacts.

Amenity and recreation

69. There are no public rights of way across the site of Bridgwater A. Construction would result in the loss of Bridgwater Sports and Social Club but funding would be made available for replacement facilities. Some leisure facilities provided for the site (football pitches) would be made available for public use.

Bridgwater C Accommodation Campus (“Bridgwater C ”)

Socio-economic

70. The main impact would be the creation of employment opportunities. The new workforce accommodated at Bridgwater A would provide benefit through expenditure for local businesses. Potential adverse impacts to community cohesion are difficult to assess but would be mitigated through a Community Safety Management Plan.

Noise and vibration

71. Construction noise and vibration would be moderately adverse but short-term. Operational noise is not expected to be significant but impacts on residential dwellings would be controlled by active management of users of Bridgwater C.

Air quality

72. Impacts are associated with exhaust emissions from construction traffic, onsite plant and operational traffic. Measures to reduce emissions would be provided in the Air Quality Management Plan. Fugitive dust and particulates would be mitigated through dust management measures. Vehicular emissions are not considered to be significant.

Geology, land contamination and groundwater

73. Overall it is concluded that potential impacts on geology or groundwater from land contamination are not significant.

Surface water

74. Potential impacts from run-off during the construction phase would be controlled by good construction practice and pollution prevention techniques. Sustainable drainage systems would control potential impacts from surface water and foul water discharges.

Landscape and visual

75. Construction activities would be visible from some residential properties, Bridgwater and Albion Rugby Football and Bridgwater College. Following construction, planting for screening using fast growing trees would be undertaken.

Amenity and recreation

76. There are no public rights of way, open access land or public open spaces within the site. Bridgwater and Albion Rugby Football would lose one pitch which is currently located on the site but propose to replace the facility elsewhere in Bridgwater.

Cannington bypass (“the bypass”)

Transport

77. During construction, there would be additional HGV movements through Cannington High Street. Traffic calming and pedestrian improvements would be in place. Once construction is complete there would be beneficial impacts on traffic volumes going through Cannington. Brymore would experience severance but this would be mitigated through new access.

Noise and vibration

78. The nearest residential properties and footpath users would be subject to significant construction noise but exposure time period would be limited. Residential properties would be screened by earth bunds. Vibration might also be experienced but not at levels to damage properties. During peak construction, closest residential properties would experience significant noise from construction but the applicant has committed to a Noise Implementation Scheme for residential property owners along affected highways.

Air quality

79. During construction measures to reduce emissions to air would be provided in accordance with an Air Quality Management Plan. There would be an increase in emissions from traffic accessing the bypass but air emissions both during construction and operation of the bypass have been assessed as not significant.

Geology, land contamination and groundwater

80. No evidence of significant contamination of any part of the route of the bypass was found. Impacts on geology, groundwater or from land contamination would not be significant.

Surface water

81. A Water and Sediment Management Plan will implement a site drainage strategy and pollution prevention techniques. The bypass has been designed to reduce the risks of flooding.

Terrestrial ecology

82. The site is not subject to any designations but supports a range of wildlife including protected species. A range of measures to mitigate impacts on wildlife are proposed with specific measures to ensure compliance with protected species legislation. Disturbance to wildlife is assessed as minor other than to barbastelle bats.

Landscape and visual

83. The bypass would impact on the landscape due to change in land use and break in landscape connectivity. There would also be impacts from lighting.
84. Landscape and visual impacts would occur mainly during the construction phase. Screening would aim to mitigate such impacts and over time, new planting would mature to provide significant visual screening and integration with the landscape.

Historic environment

85. Three archaeological sites have been identified in the site boundary. Construction would result in the removal of archaeological remains and part of the tree-lined avenue leading to Brymore House. The setting of an Iron Age hillfort and associated Iron Age-Roman earthworks would be affected. Screening would reduce impacts on setting whilst mitigation for buried archaeology would be by preservation by record.

Amenity and recreation

86. One public right of way runs through the site with another close to it. The right of way dissected by the bypass would be diverted. There are no recreational facilities on the site.

Cannington Park and Ride Facility

Noise and vibration

87. No significant noise and vibration affecting residential properties is predicted during construction or site restoration. Users of the public footpath would experience higher noise levels for a limited period during those periods. Noise during operation of the facility would not result in unacceptable disturbance at residential properties. The site would be managed to keep noise disturbance to a minimum.

Air quality

88. Measures to reduce emissions to air would be provided in accordance with an Air Quality Management Plan including dust management techniques and use of plant and vehicles compliant with current emissions standards. Emissions from vehicles during operation are not considered significant.

Geology, land contamination and groundwater

89. Impacts on geology, groundwater or from land contamination would not be significant.

Surface water

90. A drainage strategy will ensure that potential surface and foul water discharges are managed effectively. Potential impacts on water quality have been assessed as not being significant.

Terrestrial ecology

91. The facility has been designed to minimise impacts on wildlife. Specific measures would be taken to ensure compliance with protected species legislation. Overall it is assessed that there would be minor benefits to wildlife.

Landscape and visuals

92. The proposed development would result in changes to the local landscape. It would be visible to receptors close to the site. Screening would be used to mitigate these impacts, and impacts would reduce as the planting matured. The lighting would create a night time glow over the site.

Historic environment

93. There are not assessed to be any archaeological remains within the site. There may be slight impacts on the settings of historic assets but these impacts are not assessed to be significant.

Combwich Wharf Refurbishment and Extension and Freight Laydown Area

Noise and vibration

94. Wharf refurbishment works, barge movements, unloading activities and HGV movements would have adverse noise impacts on residential properties, the Combwich Motor Boat and Sailing Club ("CMBSC") and users of the nearby footpath. An acoustic barrier would reduce noise impacts for some properties on riverside, Harbour Court and Estuary Park. Potential vibration impacts could occur during piling. The applicant has committed to a Noise Insulation Scheme to residential properties closest to Combwich Wharf. The freight laydown area is not expected to result in significant impacts at residential properties for recreational receptors. Freight storage activities at the laydown area could result in adverse noise impacts on Estuary Park which would be reduced by an earth bund noise barrier.

Air quality

95. There is the potential for a range of prevailing wind conditions to carry fugitive dust and particulates to nearby ecological receptors. Assessment has concluded that construction and operational vehicular emissions of pollutants are not significant. The assessment also concludes that potential emissions from marine vessels would not have significant effects on human or ecological receptors. An Air Quality Management Plan contains measures to reduce emissions to the air.

Geology, land contamination and groundwater

96. Given the limited nature of below ground construction and the management of piling operations there are unlikely to be any adverse impacts on geology, groundwater or from land contamination.

Surface water

97. Construction activities that could affect surface water would be managed by good construction practice and pollution prevention techniques. All identified potential hydrology and drainage impacts relating to flood risk, effects on drainage features and water quality have been assessed as having no major significance.

Terrestrial ecology

98. The site is located close to the Severn Estuary Special Area of Conservation, Special Protection Area and Ramsar site and Bridgwater Bay Site of Special Scientific interest. Further away is the Quantocks Site of Special Scientific Interest which forms part of the Exmoor and Quantocks Oakwoods Special Area of Conservation. There is potential for all these sites to be indirectly affected.

99. The site itself supports various wildlife including protected species (such as reptiles, otters and water voles). The project has been designed to minimise impacts on wildlife. Special measures are proposed to protected designated sites. The proposal would result in some habitat loss and disturbance. These impacts are minor apart from on wintering and passage birds that are part of the designated sites where specific mitigation is proposed.

Landscape and visual

100. There would be visual impacts on receptors at Combwich Wharf and from surrounding paths, roads and residential properties. The creation of the freight laydown area would alter landscape and views. Screening would be provided and a noise barrier at the laydown facility would offer additional screening. During operation, landscape impacts include the arrival of vessels, off-loading of goods and associated vehicle movement.

Historic environment

101. There are assessed as being no archaeological remains within the site of the freight laydown facility. Investigations have confirmed that there are no surviving traces of the Roman port or medieval harbour at Combwich Pill. There would be a minor adverse impact on the setting of the Scheduled Monument Cynwit Camp as a result of the freight laydown facility.

Marine environment

102. There would be a loss of a small area of intertidal habitat and minor changes to turbidity resulting from construction and operation. Potential for accidental spillages and impacts from piling would be controlled by complying with good practice techniques. Operational effects from wash from vessels or clearance of silt from barge berths would be minimised through specific protocols. Hydrodynamics of tidal water could change as a result of the development although it is considered that a new stable channel would form with no significant effects. Surface water drainage from the laydown facility into the Parrett Estuary would be controlled by a Sustainable Drainage System.

Amenity and recreation

103. During construction, there would be 12 month temporary diversion of the River Parrett Trail. Potential effects on recreational users such as CMBSC through obstructed access during construction and operational phases of the development would be minimised through provision of information to such users on construction activity and the arrival and departure of vessels. There would be some minor obstruction to users of the River Parrett Trail during the operation and post-operation phases.

Junction 23 Park and Ride Facility, Freight Management Facility, Consolidation Facility and Induction Centre

Noise and vibration

104. There are not assessed as being any noise and vibration impacts to residential properties. Users of public footpaths close to the site would experience higher noise levels.

Air quality

105. Impacts are associated with exhaust emissions from construction traffic, onsite plant and operational traffic. Measures to reduce emissions would be provided in the Air Quality Management Plan. Fugitive dust and particulates would be mitigated through dust management measures. Vehicular emissions are not considered to be significant.

Geology, land contamination and groundwater

106. Soil and groundwater analysis did not reveal concentrations of contaminants that posed a significant risk to human health, ecology, plants, soils, built environment and/or groundwater or surface water. Adverse impacts on geology, groundwater or from land contamination would be low.

Surface water

107. Potential impacts upon water quality associated with sediment laden run-off, contaminated run-off, hydrology and drainage and increased flood risk have been assessed as of low significance.

Terrestrial ecology

108. The site is located close to the Severn Estuary Special Area of Conservation, Special Protection Area and Ramsar site and Bridgewater Bay Site of Special Scientific interest. These sites have the potential to be indirectly affected by the proposal. The development supports wildlife including protected species (bats and great crested newts). A range of measures to mitigate impacts on wildlife are proposed with specific measures to ensure compliance with protected species legislation. Disturbance to wildlife is assessed as minor except in relation to widgeon duck. Mitigation measures to protect widgeon duck during construction are proposed.

Landscape and visual

109. There would be impacts on the views out from the River Parrett Nature Trail and other footpaths and landscape impacts associated with the raising of the landform within the flat landscape. Lighting would also have a local impact. Screening would be put in place to mitigate impacts although there would be landscape and visual effects during construction before the planting had matured.

Historic environment

110. The only known archaeological remains on the site are flood defences which may be medieval.

The archaeological value of alluvial deposits relating to the palaeoenvironment is considered low. A Scheduled Monument, a medieval motte and bailey castle (Chisley or Chidley Mount) is located close to the proposed development. The earthworks are screened from the development site by mature planting and there is not considered to be any impact on the setting of the Monument. Potential loss of alluvial deposits, if mitigated by preservation by record, would be of limited significance.

Junction 24 Park and Ride Facility, Freight Management Facility, Consolidation Facility and Temporary Induction Centre

Air quality

111. Impacts are associated with exhaust emissions from construction traffic, onsite plant and operational traffic. Measures to reduce emissions would be provided in the Air Quality Management Plan. Fugitive dust and particulates would be mitigated through dust management measures. Vehicular emissions are not considered to be significant.

Geology, land contamination and groundwater

112. Adverse impacts on geology, groundwater or from land contamination is considered to be low.

Williton Park and Ride Facility

Noise and vibration

113. Assessment concludes that construction/restoration noise would be reduced to acceptable levels by construction hoardings. The Applicant would actively manage the site to ensure operational noise is kept to a minimum.

Air Quality

114. Impacts are associated with exhaust emissions from construction traffic, onsite plant and operational traffic. Measures to reduce emissions would be provided in the Air Quality Management Plan. Fugitive dust and particulates would be mitigated through dust management measures. Vehicular emissions are not considered to be significant.

Geology, land contamination and groundwater

115. Adverse impacts on geology, groundwater or from land contamination are not considered to be significant.

Surface water

116. Potential impacts upon water quality associated with sediment laden run-off, contaminated run-off, hydrology and drainage and increased flood risk have been assessed as not having a significant impact.

Landscape and visual

117. Construction activity would not be visible through the existing bunding and screening. Main impacts would be through increased traffic at night and views from a public right of way.

Cumulative Impacts

118. Significant cumulative impacts identified both from the “project wide” and “wider” cumulative impacts assessments are:

Noise and vibration

Construction noise on dwellings - impact from Cannington bypass and Cannington park and ride, and from Bridgwater A and C accommodation campuses

Construction noise on public rights of way – impact from Cannington bypass and Cannington park and ride

Operational noise on dwellings - impact from Cannington bypass and Cannington park and ride

Historic environment

Setting of Cynwit Castle Scheduled Monument – impact from Cannington bypass, Cannington park and ride, and Combwich freight laydown facility

Construction impact on Scheduled Monument Wick Barrow – HPC and National Grid Hinkley Point C overhead line entries

Operational impact on Scheduled Monument Wick Barrow – HPC and National Grid Hinkley Point C overhead line entries

Landscape and visual

Landscape character of the Levels and Moors Local Landscape Character Assessment – Combwich site and Junction 23 park and ride

Changes of views for users of West Somerset Coast Path and other local rights of way, residents of Wick, Stolford, Stockland Bristol and other local settlements, users of rights of way in Quantock Hills Area of Outstanding Natural Beauty and users of rights of way on elevated areas (Puriton Hill, Brent Knoll and Mendips) - HPC and National Grid Hinkley Point C overhead line entries, decommissioning of HPA, decommissioning of HPB, two wind farms (Next Generation and EDF Energy)

119. Changes in levels of significance from those impacts are assessed as occurring only for receptors in respect of landscape character and views. Otherwise the level of the impact was assessed as the same as when the impact was assessed individually.

The Panel's Report

120. As noted in paragraph 3 above, this summary should be read in conjunction with the Report of the Examining Authority to the Secretary of State dated 19 December 2012 (and the Secretary of State's decision letter of 19 March 2013). The Panel considered the environmental effects of the project (including consideration of the Environmental Statement and other environmental information supplied to them by the Applicant and other interested parties). The Panel's conclusions on these matters are set out in their Report.

121. The Secretary of State has considered all of the Panel's findings but for the purposes of this summary notes in particular the points below. In some cases, the Secretary of State has set out his conclusion on the particular issue in his decision letter. In other cases, where the Secretary of State has not specifically referred to the issue in that letter, he will nonetheless, as with all the Panel's findings, have borne their conclusions in mind whilst considering his decision.

Socio-economic – The Panel conclude that in respect of the impact on public services that “the range of measures included in the s106 Agreement (PD112) would provide suitable mitigation for the impact on services that Hinkley Point C would undoubtedly have” (ER 4.155).

Landscape and visual – The Panel concludes that the construction of the power station would have “adverse impacts on the landscape” but that these would “lessen as the site shrinks back to its final operational size” (ER 4.178). The panel further concludes that “[s]ignificant visual effects would inevitably occur during construction” (ER4.192) but that during “operation, the effects on visual receptors would be reduced” (ER4.197).

Transport – The Panel advise that the “environmental conditions in the heart of Cannington would be materially worsened if construction of the power station were to be allowed before the bypass is opened” (ER4.313) but taking into account those effects, in view of the need for the development, the phasing of the start of construction of the power start and the construction of the bypass “should not be reversed” (ER4.47)

Noise – In respect of possible noise effects at Stogursey, the Panel recommend additional requirements on both construction and operational night-time noise (ER 4.218 and 4.220). In respect of nocturnal noise at Comwich Wharf, the Panel concludes that requirement to prohibit vessels from arriving or departing the Wharf on high tides between 22:00 and 06:00 is necessary “to protect the occupants of residential properties close to the Wharf from nocturnal disturbance” (ER4.276)

Amenity and recreation – The Panel concludes that in respect of the main site, “in the short term, the loss of PRoW (public rights of way) would be significant” and that while, in the longer term, due to the provision of new paths, losses would be less significant, “they would continue to outweigh the gains” (ER 4.247). The Panel considered how recreational users of the River Parrett and Comwich Pill would be affected by the Applicant's use of daylight high tides. They concluded that the “imposition of

an additional restriction on vessel movements would be counter to” the objectives of making the fullest use possible of the Wharf and the expeditious advancement of the project (ER 4.285)