



**Hinkley Point C (Nuclear Generating Station) Order
Application**

EA Ref No: WX/2011/120100/01

IPC Ref No: EN01/0001

**Environment Agency
Relevant Representation**

We are the Environment Agency. We protect and improve the environment and make it a better place for people and wildlife.

We operate at the place where environmental change has its greatest impact on people's lives. We reduce the risks to people and properties from flooding; make sure there is enough water for people and wildlife; protect and improve air, land and water quality and apply the environmental standards within which industry can operate.

Acting to reduce climate change and helping people and wildlife adapt to its consequences are at the heart of all that we do.

We cannot do this alone. We work closely with a wide range of partners including government, business, local authorities, other agencies, civil society groups and the communities we serve.

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1. Executive Summary

Our role

As a leading organisation working to protect the environment, the Environment Agency is responsible for regulating the nuclear industry on environmental matters such as disposal and discharges of radioactive waste from the site, discharges of cooling water and operation of standby generators. We are also responsible for regulating other environmental matters, such as discharges of water and effluents from construction work and for providing pollution prevention advice to others. We have a duty to supervise all matters relating to flood and coastal risk management, and have powers to enforce land drainage bylaws.

We and the Office for Nuclear Regulation (ONR), through our complementary regulatory roles, have a responsibility to ensure that nuclear installations achieve high standards of safety, security, environmental protection and waste management.

Pre-application Consultation

Over the last two years we have worked continuously with NNB Generation Company Ltd (NNB GenCo) and its various consultants, to help ensure that the company should be able to achieve these objectives. We have provided advice to NNB GenCo as they developed their Development Consent Order (DCO) application for the proposed Hinkley Point C nuclear power station.

We made comprehensive comments in response to each of their pre-application consultations. Throughout that process, and in the subsequent lead up to their DCO application, we have had extensive discussions to address issues that we had raised in response to the company's proposals.

Overall, NNB GenCo has responded positively to many of these issues. This has allowed us to agree measures, including alterations to design or construction, use of best practice and adequate environmental monitoring and response, in their application to help secure protection of the environment, local habitats and protected species.

Outstanding Issues of Concern

Issues that could cause environmental harm do remain, but in the majority of cases these issues can be overcome by a suggested solution. Where this is the case we have recommended conditions termed "requirements" - that would incorporate those solutions into any DCO granted. In those instances, inclusion of these recommended requirements will help ensure protection of the environment.

There are still a number of important issues relating to flood risk that we have been unable to resolve with NNB GenCo. In particular our concerns centre on a fundamental problem associated with the flood risk modelling that underpins

the Flood Risk Assessments (FRAs). FRAs help the Infrastructure Planning Commission (IPC), as the decision maker, come to a view on the flood risk associated with the various development proposals. These rely entirely on the models that underpin them.

We have reviewed NNB GenCo's draft flood risk models for the proposed development sites and, where relevant, provided comments setting out our concerns on specific models. NNB GenCo has addressed our concerns in some, but not all cases, and we consider that some models remain unfit for purpose. At this moment in time we have not received all the information that enables us to provide the IPC with our view on the true nature of any increased flood risk. This means that some of the FRAs submitted in support of the DCO should not yet be relied upon to inform the IPC's decisions.

Of particular concern is the FRA submitted for the Combwich Wharf Associated Development proposal. This has identified that this development could increase the risk of harm caused to people and property during flooding. A flood protection bund is proposed to deal with this increased risk. But it is not yet clear whether the design of this bund is sufficient. We know that in this location flood risk modelling is highly complex. Small changes to the models can have significant effects – both positive and negative – on possible conclusions. Safety of people and harm to property during flooding are of paramount importance. Currently this FRA cannot adequately inform the IPC as its conclusions are not yet complete.

Our concerns above relate to the potential for increased flood risk to third party land and properties. We do not hold concerns about flooding of the proposed Hinkley Point C site itself.

We are providing this advice as per National Policy Statements EN-1 and EN-6 including the recommendation that the IPC should balance increased flood risk against project benefits, and to make clear how it has done so.

2. Introduction

Our role on nuclear licensed sites

The Environment Agency is responsible for regulating the nuclear industry on environmental matters such as disposal and discharges of radioactive waste, discharges of cooling water and operation of standby generators. We are also responsible for regulating other environmental matters, such as discharges of water and effluents from construction work and for providing pollution prevention advice to others. We have a duty to supervise all matters relating to flood and coastal risk management, and have powers to enforce land drainage bylaws.

Our role as one of the Nuclear Regulators in the DCO process is set out in Section 2.7 of the National Policy Statement (NPS) for Nuclear Power Generation (EN6) Volume 1 of 2.

We, with the ONR, (who regulate safety and security), will make sure that any new nuclear power stations being built meet high standards of safety, security, environmental protection and waste management.

The permitting and licensing of nuclear power stations by the Nuclear Regulators are separate regulatory processes which companies who wish to operate nuclear power stations have to go through.

Our approach to the DCO application for the proposed Hinkley Point C new nuclear power station

We are carefully considering the application submitted by NNB GenCo for this development. To avoid unnecessary duplication, and/or delay, and to ensure that planning and regulatory processes are focussed on the most appropriate areas we will clearly identify when these comments are:

- **Information** – on matters where we, as a regulator, are the decision maker; and
- **Advice** – recommendations, observations, or comments on matters that we consider are for the Infrastructure Planning Commission - to make decisions upon

We have received applications from NNB GenCo for Environmental Permits relating to the proposed construction and operation of a nuclear power station at Hinkley Point C. We will provide relevant **information** about our progress with the determination of these applications.

We have been consulted by, and have provided pre-application advice to, NNB GenCo in the period leading up to their DCO application. In doing so we have resolved many of our concerns, and our comments reflect only those areas that remain unresolved.

Our comments

An Executive Summary and our Outline of Principal Submissions document identify the key issues for the IPCs consideration. A number of appendices provide more detailed information on each subject area.

3. Requirements of Registration

Registration Form - Pursuant to Regulation 4(1) of the Infrastructure Planning (Interested Parties) Regulations 2010, and Section 102(4)(b) of the Planning Act 2008

The Environment Agency

For the purposes of this DCO application, by Regulation 3(a) and Columns 1 and 2 of Schedule 1 to the Infrastructure Planning (Interested Party) Regulations 2010, the Environment Agency is a statutory interested party. Since it has land proposed to be acquired compulsorily, it is also a Regulation 3(b) affected person.

Contact details

Louisa McKay. Planning Technical Specialist, Environment Agency, Rivers House, East Quay, Bridgwater, TA6 4YS (Telephone number: 01278 484721).

Land interests

The DCO application land area includes Environment Agency freehold interests identified as:

Within Part 1: Categories 1 and 2: Main 2; Main 3 and Main 4; Comb 22, Comb 34, J23-A_26, J23-A_32, J23-A_38.

Within Part 2a, Category 3: Main 7; Main 9; J23-A_8, J23-A_24 and J23-A_30 Rights of access over track known as Dunball Drove.

Statement of intention to make oral representations

The Environment Agency intends to make oral representations at relevant issue-specific hearings, and (absent concluded terms) at a compulsory acquisition hearing.

To the extent that it assists the IPC, the Environment Agency is willing to attend by invitation relevant open-floor hearings.

4. Outline of Principal Submissions

This section identifies those Issues that we would like the IPC to take into account when considering this DCO application. These relate not only to the main site itself, but all associated development sites.

It is the outline of the principal submissions of the Environment Agency required by Regulation 4(2)(e) of the 2010 Regulations.

The outline comprises summary “issues” deriving from site specific Appendices.

The issues are divided into:

- a. Issues requiring further attention
- b. Issues that can be readily dealt with
- c. Issues raised by us, as a landowner
- d. Comments on the drafting of the DCO

The Environment Agency reserves its right to add, amend, or delete principal issues as further information comes to light.

a. Issues requiring further attention

Should the IPC decide that these matters are of significance, we recommend they should be overcome prior to the IPC reaching a decision. This might be achieved if NNB GenCo submit further information to us and address our concerns.

Overarching Submissions contained within the DCO

Overarching Flood Risk Assessment (OFRA) (see Appendix 1)

1.1.A1 Issue

Where required, NNB GenCo have not submitted to us their final flood risk models and had these signed off as fit for purpose, except for the those for the main site (tidal assessment only) and Cannington Bypass. The flood risk models should inform and underpin the Flood Risk Assessments for proposed development sites.

1.1.B1 Issue

NNB GenCo have highlighted that meetings with us occurred to discuss the Sequential Test. This is not entirely the case and we are concerned that this will potentially lead to confusion about our role.

Main Site

Flood Risk (see Appendix 2)

2.1.A1 Issue

NNB GenCo has not provided us with the final flood risk modelling they carried out to inform their FRA. We reviewed, prior to the DCO application being submitted, a draft model developed by NNB

GenCo. We have commented on the model and advised NNB GenCo that, for the reasons stated in our Overarching Comments (Appendix 1 sections 1.1.A1-A3), it is currently unfit for purpose.

2.1.B1 Issue

According to the FRA, flood risk to third parties will be increased but the mitigation proposed to deal with the potential flooding is not appropriate.

Combwich Wharf

Flood Risk (see Appendix 7)

7.1.A1 Issue

NNB GenCo has not provided to us the completed flood risk modelling that they have carried out to inform their FRA for the Combwich site. We reviewed, prior to the DCO application being submitted, a draft model developed by NNB GenCo. We have commented on the model and advised NNB GenCo that, for the reasons stated in our Overarching Comments at 1.1.A1-A3, it is currently unfit for purpose. We are unable to confirm whether the FRA Assessment for Combwich is acceptable without provision of a final model and confirmation that the model has addressed our concerns.

7.1.B1 Issue

Flood water from the River Parrett, as a result of overtopping or breach of defences, could be displaced elsewhere by the development. This could increase the risk of harm caused to people and property during flooding. The chance of a flood occurring within the duration of this temporary development should not be underestimated.

Junction 23

Flood Risk (see Appendix 8)

8.1.A1 Issue

NNB GenCo has not provided to us with the completed flood risk modelling that they have carried out to inform their FRA for the Junction 23 site. We reviewed, prior to the DCO application being submitted, a draft model developed by NNB GenCo. We have commented on the model and advised NNB GenCo that, for the reasons stated in our Overarching Comments at 1.1.A1-A3, it is currently unfit for purpose. We are unable to confirm whether the FRA for Junction 23 is acceptable without provision of the model and confirmation that the model has addressed our concerns.

8.1.B1 Issue

The proposed finished site levels and surface water drainage system are designed for temporary use of the site up until 2020 only. The FRA does not commit to whether the site will be retained as legacy

development, or returned to pre-development status. If the development were to be retained beyond 2020 then this has potential flood risk implications for the site and surrounding land/property, which are not addressed by the current FRA.

8.1.C1 Issue

Flood defence improvement works are identified in the current FRA and proposed in the draft DCO. Whether these can be provided is in doubt due to queries over land ownership.

b. Issues that can be readily dealt with

We believe all the following Issues may be resolved by the inclusion of appropriately worded requirements in any DCO granted. We have given examples in the Appendices.

Overarching Submissions contained within the DCO

Overarching Waste Management Implementation

Strategy (see Appendix 1)

1.2.A1 Issue

Requirement PW20 is included within the project-wide document category but applies to the Hinkley Point C main site construction works only. It would not appear to be applicable to all of NNB GenCo's proposed works, including the intake heads and associated development proposals.

Overarching Environmental Management documents (see Appendix 1)

1.3.A1 Issue

The draft requirements appear to refer to documents that do not exist and the names of the Subject Specific Management plans have been misidentified. In addition to this we have concerns that neither requirement PW24 nor PW25 make reference to the jetty works.

1.3.B1 Issue

The Environmental Incident Control Plan (EICP) needs further work to ensure the appropriate reporting of incidents that are not within the control of an Environmental Permit.

1.3.C1 Issue

NNB GenCo has stated that they will use Site Waste Management Plans (SWMPs), however SWMPs have yet to be provided.

Enforceability (see Appendix 1)

1.4.A1 Issue

At this time it is unclear which authority will be responsible for enforcing requirements. To facilitate further discussions we have suggested requirements based on the Marine Management

Organisation and the relevant local authority being the enforcing authorities. Nonetheless we would wish to be re-consulted on the enforcement of any requirements relating to issues that we have raised.

1.4.B1 Issue

A number of proposed requirements contained within the DCO application are too vague and are therefore potentially unenforceable e.g. PW20.

1.4.C1 Issue

In requirement PW27 the use of temporary associated development sites appears to be contradicted by other requirements contained within the DCO application.

Main Site

Flood Risk (see Appendix 2)

2.1.C1 Issue

Should the sea defences to the east of Hinkley Point C overtop or breach in future, infilling the Holford Stream valley has the potential to increase the level of tidal flooding of third party land and properties in the Stolford Area. The proposed mitigation is not considered robust enough to safeguard third party flood risk interests in the longer term.

2.1.D1 Issue

The proposal to design essential drainage features, in detail, at a later stage is not best practice.

2.1.E1 Issue

The draft DCO does not currently contain sufficient requirements to secure the necessary flood risk management infrastructure at the site to safeguard adjacent land and property from increased flood risks as a result of the development.

Coastal Geomorphology (see Appendix 2)

2.2.A1 Issue

There is a risk that the development proposals will interfere with the sediment regime in the localized area.

Surface Water Quality (see Appendix 2)

2.3.A1 Issue

Oil interceptors are only proposed for the site preparatory works. We believe that this requirement should be extended to include the main build development. To ensure the appropriate pollution prevention measures are imposed.

2.3.B1 Issue

The Water Management Plan (WMP) that will be used during the construction period needs further work to ensure that the development does not have an adverse impact on water quality.

2.3.C1 Issue

Construction activities could adversely affect local ditches, watercourses and groundwater. There is a risk of pollution from suspended solids, hydrocarbons, concrete leachate and other construction related contaminants.

2.3.D1 Issue

Construction of the seawall and the intake and outfall tunnels could lead to pollution of coastal waters.

Groundwater Quality (see Appendix 2)

2.4.A1 Issue

There are pollution risks, associated with contaminated land, which may occur during dewatering activities.

Ecology (see Appendix 2)

2.5.A1 Issue

Construction activities have the potential to cause detrimental impacts on local ecology. It is important that this is recognised, and that appropriate protective measures are included in NNB GenCo's proposals.

2.5.B1 Issue

Harm could be caused to the marine ecology, and ultimately the integrity the designated site, if means to mitigate the impact of sea water abstraction do not operate to optimal levels.

2.5.C1 Issue

Unless appropriately managed, the piling techniques proposed could cause environmental harm to protected species.

2.5.D1 Issue

An Acoustic Fish Deterrent (AFD) system - the only form of mitigation that can protect swim bladder fish - is not proposed to be used at slack water and there is no rationale for such an approach. The impact of not operating the AFD system on a continuous basis has not been assessed.

Bridgwater A

Flood Risk (see Appendix 3)

3.1.A1 Issue

The draft DCO does not contain sufficient requirements to ensure that the necessary flood resilience/protection measures are installed at the site.

Groundwater and Contaminated Land (see Appendix 3)

3.2.A1 Issue

NNB GenCo have had limited access to the site to undertake intrusive investigations and are relying on the results of a site investigation carried out by a third party in 2007. The results of this survey are considered inadequate and further assessment is required before the need for any remediation can be established.

Bridgwater C

Flood Risk (see Appendix 4)

4.1.A1 Issue

The draft DCO does not contain sufficient requirements to ensure that the necessary flood risk management measures are incorporated at the site and/or provided to safeguard adjacent land and property from increased flood risks.

Groundwater and contaminated land (see Appendix 4)

4.2.A1 Issue

There is a greater risk that pollution may be released into groundwater with the piling method proposed for this site than with other methods.

4.2.B1 Issue

There remains the risk that construction activities on site might mobilise pollutants by disturbing them, or by creating new pathways through which contamination can travel.

Cannington Bypass

Flood Risk (see Appendix 5)

5.1.A1 Issue

The draft DCO does not contain sufficient requirements to ensure that the necessary flood risk management measures are incorporated at the site and/or provided to safeguard adjacent land and property from increased flood risks.

Sustainability - Flood Risk / Ecology (see Appendix 5)

5.2.A1 Issue

The design of the carriageway does not represent best practice due to the high use of culverts.

Cannington Park and Ride

Flood Risk (see Appendix 6)

6.1.A1 Issue

The draft DCO does not contain sufficient requirements to ensure that the necessary flood risk management measures (e.g. appropriate drainage) are incorporated at the site and/or provided to safeguard adjacent land and property from increased flood risks.

Combwich Wharf

Flood Risk (see Appendix 7)

7.1.C1 Issue

The FRA for this development proposes that surface water from the freight lay down area drainage system is discharged to the River Parrett through the Tuckett's Clyce outfall. The FRA does not recognise that the structural condition of this outfall – and its risk of failure – represents a potential weakness in the drainage system.

7.1.D1 Issue

The draft DCO does not contain sufficient requirements to ensure that the necessary flood risk management measures are incorporated to address flood risk concerns at the site.

Ecology and Flood Risk (see Appendix 7)

7.2.A1 Issue

Construction piling at Combwich may have a detrimental impact on protected species - specifically Atlantic Salmon and European Eel.

7.2.B1 Issue

There is a risk that the type of piling used (percussive piling) will damage the flood defences in the area.

7.2.C1 Issue

Increased boat traffic on the River Parrett has the potential to have detrimental effects on the surrounding protected habitats.

7.2.D1 Issue

Bank erosion could occur at Combwich - causing damage to protected habitats and increased flood risk. Any changes to the hydro dynamic regime may adversely effect erosion rates of the river banks in this area and adversely affect the integrity of the flood defences.

Junction 23

Flood Risk (see Appendix 8)

8.1.D1 Issue

There are a number of requirements missing from the DCO application to ensure that the necessary flood risk management measures are incorporated at the site.

Water Quality

8.2.A1 Issue (see Appendix 8)

Construction activities could adversely affect local ditches, watercourses and groundwater. There is a risk of pollution from suspended solids, hydrocarbons, concrete leachate and other construction related contaminants.

Junction 24

Flood Risk (see Appendix 9)

9.1.A1 Issue

The draft DCO does not include the flood risk requirements that we have previously recommended NNB GenCo include, to cover flood risk concerns at the site.

Water Quality (see Appendix 9)

9.2.A1 Issue

Construction activities could adversely affect local ditches, watercourses and groundwater. There is a risk of pollution from suspended solids, hydrocarbons, concrete leachate and other construction related contaminants.

9.2.B1 Issue

The overarching Water Management Plan (WEP) (s.2.3.43) states that there is no foul sewer available. According to Wessex Water Maps, there is a public main foul sewer running along the length of the main Huntsworth Business Park access road, to which a connection from the proposed park and ride site could easily be made.

Highway Improvements

Flood Risk and Water Quality (see Appendix 10)

10.1.A1 Issue

The draft DCO does not contain sufficient requirements to ensure that the necessary flood risk management measures are incorporated into those works.

Requirements across all sites

Construction Environmental Plan (see Appendix 11)

11.1.A1 Issue

A Construction Environmental Management Plan (CEMP) has not been produced by NNB GenCo.

Site Waste Management Plan (see Appendix 11)

11.2.A1 Issue

Site Waste Management Plans (SWMP) have not been produced.

Environmental Incident Response Plan (see Appendix 11)

11.3.A1 Issue

Site Specific Environmental Incident Response Plans (EIRP) have not been produced by NNB GenCo

Soil Management Plan (see Appendix 11)

11.4.A1 Issue

Excavated soil will be stockpiled on a number of sites and it is intended that this material will then be reused to return these sites to their original form. This material could, however, be deemed unsuitable for use.

Groundwater and Contaminated Land (see Appendix 11)

11.5.A1 Issue

Potentially unknown contamination might be disturbed, and released, during construction.

c. Issues raised by us as a landowner (see Appendix 12)

The Environment Agency is strongly opposed to the compulsory acquisition of our land. This is because we have already granted to NNB GenCo an option for lease of the land required or needed for the temporary jetty pursuant to the earlier application for a Harbour Empowerment Order (and attendant Transport and Works Act compulsory acquisition) which resulted in NNB GenCo excepting the Environment Agency's interest from such acquisition. Having established such a principle, we again maintain our offer to take a similar approach. Therefore, we do not consider that the compulsory acquisition of its land interest is necessary or required.

d. Comments on the drafting of the DCO (Appendix 13)

We have concerns relating to the currently proposed drafting of the DCO, particularly in relation to the jetty. Appendix 13 explains in full these concerns and suggests alternative drafting that would help secure appropriate outcomes.

5. Conclusions

Over the last two years the Environment Agency has been actively consulted by NNB GenCo on its proposals for the Hinkley Point C nuclear power station and associated development sites. During this process we have reviewed and provided comprehensive comments upon many detailed technical documents, environmental models, assessments and designs. Our focus has been to seek to secure high standards of safety, security, environmental protection and waste management through the content of NNB GenCo's application for a DCO.

Throughout that process, and in the subsequent lead up to their DCO application, we have had intensive discussions to overcome issues that we had raised in response to the company's proposals. NNB GenCo has responded positively to many of the issues we raised. This has allowed us to agree measures – whether they are alterations to design, construction and operational best practice, or adequate environmental monitoring and response – referred to in their application that will secure protection of the environment, local habitats and protected species. These will become apparent upon subsequent production of a Statement of Common Ground by NNB GenCo with us and other organisations.

Issues that could cause environmental harm, increase or fail to adequately control flood risk do remain. In the majority of cases these matters can be overcome by further work on NNB GenCo's part, or development of enforceable requirements within the DCO. In those instances we have suggested solutions and recommended requirements that would incorporate those solutions into any DCO granted.

There are still a number of important issues relating to flood risk, which we have been unable to resolve with NNB GenCo prior to the submission of their DCO application. Our concerns centre on a fundamental problem with flood risk modelling. This modelling provides the evidence base to underpin FRAs. These FRAs will inform, the IPC, of the risks associated with their proposed development and the adequacy of any proposed mitigation, such as flood protection bunds.

NNB GenCo has addressed our concerns in some specific models, but not in all cases, and we consider that some models remain unfit for purpose. Consequently we are unable to confirm whether the FRAs submitted in support of the DCO application are acceptable until we receive all the modelling information that we need. We will then be able to provide the IPC with advice on the true nature of any increased flood risk.

Our concerns primarily relate to the potential for increased flood risk to third party land and properties as a result of the development proposals. This is consistent with the requirements of Planning Policy 25 (PPS25) and National Policy Statements EN1 and EN6. There is nothing in NNB GenCo's application that leads us to hold concerns about flooding of the Hinkley Point C site, provided that appropriate enforceable requirements are included in any DCO granted.

Appendix 1 - Overarching Submissions contained within the DCO Application

These comments are made in response to the application to construct a new twin reactor nuclear power station at Hinkley Point and relate not only to the main site itself, but all associated development sites. Specifically these comments are made on overarching matters.

1.1. Overarching Flood Risk Assessment (OFRA)

Our flood risk related comments on the DCO relate wholly to our role as statutory consultee under NPS EN1, EN6 and PPS25 and do not relate to any matters considered as part of the safety case required for the Nuclear Site Licence issued by the ONR.

1.1.A1 Issue

Where required, NNB GenCo have not submitted to us their final flood risk models and had these signed off as fit for purpose for the proposed development sites. The exceptions are those for the main site (tidal assessment only) and Cannington Bypass. The flood risk model should inform and underpin the Flood Risk Assessments for each of the proposed development sites.

Consistent with EN-1 (July 2011) paragraph 5.7.7 we have had a significant number of discussions with NNB Gen Co during the DCO pre-application phase about flood risk modelling and their flood risk assessments.. We have reviewed draft flood risk models for the proposed sites and, where relevant, provided comments setting out our concerns with specific models. NNB GenCo has addressed our concerns in some cases, but not all, and we consider that those models that remain unfit for purpose are currently incapable of informing flood risk assessments.

1.1.A2 Impact

In our role as flood risk management and defence advisor, we are presently unable to complete our assessment of, and provide final comments on the:

- quality of the data underpinning the Flood Risk Assessments provided; and
- the adequacy of the conclusions drawn in those Flood Risk Assessments;

until we receive the final flood risk models and agree that they are fit for purpose (with one exception – Cannington Bypass – see table 1 below).

We provide this advice in response to criteria within NPS EN-1 paragraph 5.7.17 which recommends that the IPC should balance increased flood risk against project benefits and to make clear how it has done so.

Background

In autumn 2010, our Stage II Consultation response, at Appendix N, identified that a detailed review was impossible due to the absence of model files for supplied scenarios and our consideration was limited to a partial review only. We have identified that critical issues arose within the submitted information and that models were not producing reliable results. This has been fed back to NNB GenCo. It is therefore premature to determine what confidence we have in the model predictions.

Subsequently, the DCO application has included Flood Risk Assessments. But we have not yet received, or signed off as fit for purpose, the final flood risk models. Without that information, we cannot be satisfied whether the models themselves, or the assessments and conclusions which flow from those models are reliable, nor can we advise the IPC of the same. In light of the status attributed to flood risk by EN-1 and our advisory role, we remain concerned that we are as yet unable to provide proper advice on this matter.

Table 1 identifies the models that NNB GenCo have previously submitted for review and our current position with regard to signing them off as fit for purpose. You will note that the majority have yet to be signed off.

Site	Model	Date of Last Submission	EA Review Status
Main Site	Tidal 2D (TUFLOW)	Sep-11	Low risk issues remain but signed off as fit for purpose
Main Site	Fluvial 1D (ISIS)	Sep-11	Outstanding issues – not signed off
Cannington Bypass	Fluvial 1D/2D (ISIS-TUFLOW)	Nov-11	Low risk issues remain but signed off as fit for purpose
Combwich	Fluvial 1D/2D (ISIS-TUFLOW)	Nov-11	Outstanding issues – not signed off
Combwich	Tidal 2D (TUFLOW)	Nov-11	Outstanding issues – not signed off
Junction 23	Tidal 2D (TUFLOW)	Nov-11	Outstanding issues – not signed off

Table 1

1.1.A3 Suggested Solution

NNB GenCo should:

- where relevant address concerns we have identified in modelling; and
- provide us with updated final flood risk models and any reports.

Once we have reviewed whether the models are fit for purpose and therefore provide robust evidence upon which FRA conclusions can be based, then we will advise the IPC of our conclusions. We note that EN-1 paragraph 5.7.7 states that the IPC should advise developers to undertake steps that appear to have not yet been addressed.

1.1.B1 Issue

NNB GenCo have highlighted that meetings were held with us on the 15th February 2010 and the 15th April 2010 to discuss the Sequential Test and this comment could lead to confusion.

1.1.B2 Impact

This comment could lead to confusion about our role.

1.1.B3 Suggested Solution

We would like to offer the following clarification:

Whilst the Sequential Test was discussed briefly at these meetings, it was not the focus for them. The primary reason for these meetings was to discuss far more detailed flood risk issues. We did, however, highlight that we are not the decision maker for the sequential test and that this is the role of the relevant planning authority as described in PPS25.

1.2. Overarching Waste Management Implementation Strategy

1.2.A1 Issue

Requirement PW20 (page 117 of the draft Order) is included within the project-wide document category but applies to the Hinkley Point C main site construction works only. It would not appear to be applicable to all of NNB GenCo's proposed works, including the intake heads and associated development proposals.

1.2.A2 Impact

If the Waste Management Strategy is not applied to all of NNB GenCo's proposed developments, unsustainable waste management practices and the development of inappropriate waste management practices could arise together with related environmental harm.

1.2.A3 Suggested Solution

We recommend a requirement (as below) requiring adherence to NNB GenCo's Waste Management Strategy on a project-wide basis is included in the DCO.

1.2.A4 Requirement

The authorised project shall be carried out in accordance with the Waste Management Strategy, unless otherwise agreed by the Local Planning Authority.

1.3. Overarching Environmental Management documents

1.3.A1 Issue

With reference to proposed:

- Requirement PW24 - HPC Development Site: Subject Specific Management Plans (page 118), and
- Requirement PW25 - Off Site Associated Development Sites: Subject Specific Management Plans (page 119)

As currently presented, the draft requirements refer to documents that do not exist and the names of the Subject Specific Management plans have been misidentified. In addition to this we have concerns that requirement PW24 nor PW25 do not make reference to the jetty works.

1.3.A2 Impact

Unless they are appropriately worded and enforced then there is a risk that the Subject Specific Management Plans will not help to ensure that the risk of environmental incidents, and any impact on the environment, are minimised.

1.3.A3 Suggested Solution

We recommend that the wording of these requirements is reviewed to ensure that NNB GenCo proposals are carried out in accordance with the appropriate Subject Specific Management Plans.

More generally, where specific elements of mitigation that are crucial to the acceptability of the proposed developments are identified in the DCO these key elements should be included in a requirement, or series of requirements.

1.3.A4 Requirement

We recommend adjustments to the wording of recommended requirements, as follows:

PW24 - The Hinkley Point C development, and the Jetty, shall be carried out in accordance with the following Subject Specific Management Plans:

- *Level 2 Environmental Management Plan (EMMPS)*
- *Level 3 Land Contamination Management Plan (LCMP)*
- *Level 3 Materials Management Plan (MMP)*
- *Level 3 Ecology Management and Monitoring Plan (EcMmP)*
- *Level 3 Waste Implementation Strategy*
- *Level 3 Soil Management Plan (SMP)*

Note also our comments within site specific relevant representations about our concerns over the Main Site Level 3 Environmental Incident Control Plan (EICP) and the Level 3 Water Management

Plan. We consider that further work is required on these documents before they are fit for purpose.

PW25 All- off site associated development shall be carried out in accordance with the following management plans:

- *Level 2 Environmental Management Plan (EMMPS)*
- *Level 3 Land Contamination Management Plan (LCMP)*
- *Level 3 Materials Management Plan (MMP)*
- *Level 3 Ecology Management and Monitoring Plan (EcMmP)*
- *Level 3 Waste Implementation Strategy*
- *Level 3 Soil Management Plan (SMP)*

1.3.B1 Issue

The Environmental Incident Control Plan (EICP) needs further work to ensure the appropriate reporting of incidents that are not within the control of an Environmental Permit.

1.3.B2 Impact

If a major environmental incident occurs and it is responded to in an uncoordinated way, then there is a high risk that pollution would not be effectively treated. For instance, should an incident occur, which affects a watercourse then a lack of coordination in incident response may mean that we are not appropriately notified within an appropriate timescale. This will delay our involvement in ensuring the appropriate mitigation measures are carried out.

1.3.B3 Suggested Solution

The Level 3 EICP must instruct contractors to include a step in their response to environmental incidents which requires them to report relevant pollution incidents to a drain, watercourse or ground to the Environment Agency immediately and to provide their staff with a 24hr emergency contact number for the reporting of environmental incidents.

1.3.B4 Requirement

No development of the authorised project shall occur until a Level 3 Environmental Incident Control Plan (EICP) has, after consultation with the Environment Agency, been submitted to and approved by the Local Planning Authority.

No HPC development or temporary jetty works shall occur until a Level 3 Environmental Incident Control Plan (EICP) has, after consultation with the Environment Agency, been submitted to and approved by the Marine Management Organisation.

No development at Combwich Wharf shall occur until a Level 3 Environmental Incident Control Plan (EICP) has, after consultation

with the Environment Agency, been submitted to and approved by the Marine Management Organisation.

Note: This applies only to incidents not covered by specific extant environmental permits where reporting arrangements are a requirement of the permit.

1.3.C1 Issue

NNB GenCo has stated that they will use Site Waste Management Plans (SWMPs) However SWMPs are not contained within the Environmental Management and Monitoring Plan. This implies that each contractor will produce their own version of SWMPs, using their own templates and objectives. This will inevitably lead to inconsistency between contractors and make it difficult to use the data produced to demonstrate compliance with the objectives that NNB GenCo have set. If there is no consistency in approach to SWMPs there is a risk that they will not be correctly operated.

1.3.C2 Impact

The main purpose of a SWMP is to minimise waste production from the outset and so the requirement for, and content of, individual SWMPs should form part of the overarching strategy for waste management. If they are independently produced then there is a likelihood that they will not deliver the objectives of the overarching strategy. There is also the risk that they will not provide the data and information needed for NNB GenCo to demonstrate that they are recovering and recycling materials and minimising the waste going to landfill. We regard it as the responsibility of NNB GenCo to create a template and ensure that it is adhered to.

1.3.C3 Suggested Solution

NNB GenCo should create a template for Site Waste Management Plans under the Environmental Management and Monitoring Plans and include it in the Subject Specific Documents.

This will provide a consistent approach for all contractors working on any construction and demolition projects related to the proposed Hinkley Point C and its associated developments. All SWMPs can then be compared consistently, and the data used to demonstrate that the objectives NNB GenCo have set themselves regarding waste management are being achieved. We and the Local Authority will then be more able to effectively and efficiently regulate these sites.

1.3.C4 Requirement

No HPC or Jetty development shall commence until a level 3 Site Waste Management Plan template has, after consultation with the

Environment Agency, been submitted to and approved by the Local Planning Authority.

No associated development shall commence until a level 3 Site Waste Management Plan template has, after consultation with the Environment Agency, been submitted to and approved by the Local Planning Authority.

No HPC development or temporary jetty works shall commence until a level 3 Site Waste Management Plan template has, after consultation with the Environment Agency, been submitted to and approved by the Marine Management Organisation.

No associated development (Work Nos. 4 – 22) shall commence until a level 3 Site Waste Management Plan template has, after consultation with the Environment Agency, been submitted to and approved by the Marine Management Organisation

1.4. Enforceability

1.4.A1 Issue

At this time it is unclear which Authority will be responsible for discharging and enforcing the requirements of the DCO. To facilitate further discussions we have suggested requirements based on the Marine Management Organisation and the relevant local authority being the enforcing authorities. Nonetheless we would wish to be re-consulted on the enforcement of any requirements relating to issues that we have raised.

1.4.A2 Impact

Possible gaps appearing in the DCO in which issues are not addressed/ enforced.

1.4.A3 Suggested Solution

Clear guidance from the IPC on which authority/authorities are responsible for discharging requirements. We have suggested requirements based on the MMO and the Local Authority being the enforcing authority. We however would wish to be re-consulted on requirements as areas get discussed

1.4.B1 Issue

A number of proposed requirements contained within the DCO application are too vague and are potentially unenforceable where the phrase “in general accordance with” is used within its terms. This includes: PW20, PW24 and PW25. Further, a number of proposed requirements contained within the DCO application are reliant upon

Flood Risk Assessments and other documents in general (rather than specific parts thereof) meaning there are likely to be problems in enforcing such requirements. This includes: draft flood risk requirements BRIC9, CB7, C10, CP10, CB10 , BRIA10, J23 - 9, J24 - 9 and WP 9 (flood risk).

1.4.B.2 Impact

Department of Environment Circular 11/95 stresses that the use of conditions in planning permissions should not be vague since this hinders their enforcement. The IPC/ LPA may well find that they are unable to take enforcement action in key areas if these proposed requirements are not revised.

Requirements must be enforceable since otherwise flood risk to these sites, and/or neighbouring third party property, could be increased, which would be contrary to the expectations of PPS25 Development and Flood Risk. Further if environmental management practices are difficult to enforce then this may lead to pollution risks, contrary to PPS23.

Theoretically, mitigation measures included in a planning document (e.g. the FRA, or the environmental statement) could be considered to form part of the design approved under the Development Consent Order. If these mitigation measures were then omitted from the finished development. It ought to be possible for the LPA to take enforcement action to correct this. However, Paragraph 19 of Circular 11/95 notes that: "it may well be easier for LPAs to enforce compliance with a condition that has been breached than to take enforcement action against a material variation from the approved plans, or descriptions of development".

1.4.B.3 Suggested Solution

Where there are important specific elements of mitigation, suggested by these documents (which are crucial to the acceptability of the proposed scheme); placing these elements into a specific requirement, or series of requirements, will help them to be more easily enforced if necessary.

1.4.C1 Issue

Requirement PW27 concerns the use of temporary associated development sites. This states that use of those sites shall cease upon completion of the Hinkley Point C construction works. The FRAs submitted reflect this temporary use. However this principle appears to be undermined by other requirements contained within the DCO application indicating a post scheme purpose, for example J23-15, which is not catered for in the FRA.

1.4.C2 Impact

These sites have been supported by FRAs which only cover the periods for which NNB GenCo require these sites to be operational. Proposed requirements BRIA16, BRIC13, CP13, C16 J24-11, J23-15, WP13 all provide a mechanism by which time periods can be extended. If the lifetime of these developments were extended then they could exist beyond the time period for which the Flood Risk Assessments were undertaken. These developments could then become insufficiently protected from flooding.

1.4.C3 Suggested Solution

The FRA and draft DCO should commit NNB GenCo to the restoration of the site to its existing form and use rather than allow the development's lifetime to be extended. Alternatively FRAs should be produced which encompass the possibility of long term uses of the site.

Appendix 2 - Main Site

2.1. Flood Risk

2.1.A1 Issue

NNB GenCo has not provided to us the final flood risk modelling that they have carried out to inform their FRA. We reviewed, prior to the DCO application being submitted, a draft model developed by NNB GenCo. We have commented on the model and advised NNB GenCo that, for the reasons stated in our Overarching Comments at 1.1.A1-A3, it is currently unfit for purpose. We are unable to confirm whether the FRA for this site is acceptable without provision of the model and confirmation that it has addressed our concerns that we previously communicated to them.

2.1.A2 Impact

Our concerns in this area are specific to the potential flood risk impacts to neighbouring third party land and property attributable to the development of the main site. In particular the effects of the Holford Stream valley culvert and the emergency access bridge crossing of the Bum Brook, may not be properly understood and could be erroneously reported in the FRA.

2.1.A3 Suggested Solution

We have previously submitted comments to NNB GenCo on their model. These comments should be addressed and an updated model, and its accompanying, report be re-submitted for further evaluation. We can then confirm whether it is fit for purpose and whether the FRA reaches correct conclusions, and we will advise you of our analysis before the IPC makes its recommendations.

2.1.B1 Issue

According to the FRA, flood risk to third parties will be increased. The mitigation proposed to deal with the potential flooding is not appropriate.

2.1.B2 Impact

The FRA states in section 8.5.58 that infilling of the Holford Stream valley (as part of the main power station platform and construction of Water Management Zones 4 and 5) would result in the loss of approx 5500 cubic metres of the functional floodplain (Flood Zone 3b, as defined in PPS 25) of the Holford Stream. At section 8.5.61 the FRA also states that some additional loss will occur due to the impact of the emergency access bridge crossing of Bum Brook. There is no attempt to mitigate for these impacts, despite section 8.5.4 of the FRA acknowledging that NPS EN-1 requires that there be no net loss of functional floodplain storage as a result of development.

The FRA concludes that the result of infilling the functional floodplain and providing an emergency access bridge has the potential to increase upstream fluvial flood levels by up to 400mm and 160mm respectively in a flood with 1% annual probability of occurrence in 2100. This adverse impact is caused by the development's footprint displacing floodwater from the existing functional floodplain.

2.1.B3 Suggested Solution

The FRA suggests, in section 8.5.77, that the adverse impacts on functional floodplain would be reduced as far as possible by further refining culvert and bridge designs.

Information indicating the total extent to which floodplain would be affected by design changes should be available now, enabling fully informed decisions to be reached at this stage. Any further design measures should have been developed, prior to the submission of the application, so that the IPC can understand the harm that is most likely to be caused to functional floodplain storage, and the possible adverse effects elsewhere as a result. This would also allow the extent of mitigation needs to be better understood.

This information should be developed and now submitted in support of the DCO application.

2.1.C1 Issue

Section 8.4 of the FRA discusses impacts associated with tidal flooding, should the sea defences to the east of Hinkley Point C ever overtop or breach in future. It identifies that infilling the Holford Stream valley has the potential to increase flood risk to various third parties around Stoford. The application also lacks clarity regarding long term future maintenance arrangements and improvements to these sea defences.

The proposed mitigation described in sections 10.5.5 to 10.5.10 of the FRA is not considered robust enough to safeguard third party flood risk interests in the longer term. The draft DCO contains a suggested requirement - P13 to manage the impact, but this is only relevant to the site preparation works, and does not take account of the longer term requirements to safeguard third party tidal flood risk.

2.1.C2 Impact

The FRA quantifies the additional flood depths potentially caused by the Holford Stream valley infilling and displacing of tidal floodwater elsewhere, as relatively small (up to +90mm for overtopping, and +110mm were there to be a breach, in the year 2100). These would be permanent increases in flood risk. Such an impact is considered to be contrary to the key objectives of PPS25. Uncertainty in climate change predictions on sea level rise, together with a lack of clarity in

the funding and maintenance arrangements for these sea defences in the medium to longer term, mean that the risk of overtopping and/or breach of the existing sea defences could potentially increase over time. This could expose the local area (including residential properties) to slightly deeper flooding than that predicted and certainly flood depths would be greater than that would be experienced if no development occurred.

2.1.C3 Suggested Solution

Sections 10.5.6 and 10.5.7 of the FRA propose an enhanced monitoring and inspection regime for the sea defences to the east of Hinkley Point. This proposal appears impractical and so we would instead recommend that a more simplistic and workable flood risk mitigation option be pursued, as described in the requirement below.

The DCO should also stipulate that NNB GenCo provide a financial contribution into a bespoke Community Flood Fund to help deal with any remaining adverse tidal impacts. This fund should be ring-fenced and held by the Local Authority, which would liaise with appropriate bodies to specifically contribute to schemes that will benefit those affected by increased flood levels caused by NNB GenCo's development.

A mechanism to deliver this fund already exists in the form of the Wessex Regional Flood and Coastal Committee of which the local authorities and Somerset County, the Internal Drainage Board and the Environment Agency are all members.

This group was set up to carry out the following:

- To ensure there are coherent plans for identifying, communicating and managing flood and coastal erosion risks across catchments and shorelines.
- To promote efficient, targeted and risk-based investment in flood and coastal erosion risk management that optimises value for money and benefits for local communities.
- To provide a link between the Environment Agency, other risk management authorities and other relevant bodies to engender mutual understanding of flood and coastal erosion risks in its area.

2.1.C4 Requirement

"No development shall commence until a Flood Risk Management Strategy has, after consultation with Environment Agency, been submitted to and approved by the Local Planning Authority.

2.1.D1 Issue

Chapter 9 of the FRA deals with proposed site surface water drainage arrangements, which are an essential part of the flood risk management infrastructure. The proposal is to design essential drainage features, in detail, at a later stage (section 9.5.11 refers). This is not best practice. The hydraulic performance of the various Water Management Zones (WMZs), and the viability of engineering designs should be fully understood as material issues now, prior to determination of the DCO. No surface water drainage arrangements for the emergency access road from the Shurton/Burton road are provided in the FRA.

2.1.D2 Impact

There are no preliminary surface water drainage design simulations for the various works described in Chapter 9 of the FRA, and so it remains unclear as to whether the proposed WMZs can be appropriately sized, and sited, within the construction layout.

The FRA does not show how the WMZs will be designed to attenuate site surface water drainage discharges so that they match undeveloped greenfield runoff rates. Should rainfall rates exceed the surface water drainage design then any impact on the site, or to adjacent third party land/property, has not currently been defined. Whilst this is also thought to be a low risk, it is a risk that should be understood, and quantified, for the IPC when considering the DCO application.

2.1.D3 Suggested Solution

The proposed surface water drainage design must demonstrate that it is able to achieve the required discharge standards for the site, and that adjacent third party land/property will not be affected by heavy rainfall during construction and operational phases.

2.1.D4 Requirement

No development shall commence until a surface water drainage scheme for the site (including management and maintenance arrangements) has been submitted to and approved in writing by the Local Planning Authority. The design should be based on sustainable drainage principles, and include an assessment of the hydrological and hydrogeological context of the development. The approved scheme shall subsequently be implemented in accordance with the approved details before the development is completed.

2.1.E1 Issue

We consider that the draft DCO does not currently contain sufficient requirements to secure the necessary flood risk management

infrastructure at the site to safeguard adjacent land/property from increased flood risks as a result of the development.

2.1.E2 Impact

Flood risk to the site, and/or neighbouring third party land/property, may be increased and/or not adequately regulated by the Local Planning Authority (LPA) if the DCO application is granted as currently submitted.

2.1.E3 Suggested Solution

We advise that the following additional requirements are incorporated into the DCO.

2.1.E4 Requirement

The Hinkley Point C nuclear island platform finished level will be set no lower than 14.0mAOD(N).

(note: this is to meet the requirements of EN1, EN6 and PPS 25)

The new sea wall will have a finished crest level no lower than 13.5m AOD (N).

The surface water drainage arrangements (preparation, construction, and operational phase) shall be carried out in accordance with the surface water drainage strategy highlighted in chapter 9 of the FRA, unless otherwise approved in writing by the Commission.

Requirements MS19 and OS 8 should be modified to include the future responsibility and maintenance arrangements for the surface and foul water drainage systems to be agreed as part of the details.

The emergency access bridge over the Bum Brook must be set no lower than 21.2m AOD (N) (as per section 8.5.50 of the FRA), unless otherwise agreed by the Commission.

NOTE: Figure 22 of the FRA – Conceptual Bum Brook bridge design has not been reflected in the fluvial flood risk modelling work. This figure has indicative soffit levels at approx. 20.0mAOD(N), some 1.2m lower than those modelled.

Prior to construction of any of the proposed surface water drainage works for the on-shore jetty development, details of the engineering construction of the proposed water management zone, all associated pipe work, manholes, flow controls, land drains and Hinkley watercourse modifications shall be submitted to and approved by the LPA. The works shall be carried out in accordance with the approved details and phasing programme.

Prior to construction of the temporary access road to the foreshore, engineering construction details for the road, and any highway drainage works, shall be submitted to and approved by the Local Planning Authority. The foreshore access will be closed off and/or removed on completion of construction of the off-shore jetty works unless otherwise agreed in writing by the LPA.

Prior to use of the foreshore access road for any construction activities, flood warning notices shall be erected in position(s), and with wording to be agreed by the LPA.

Due to the jurisdiction of the local authority with regards to the Marine Licence for the jetty, we would request that the Marine Management Organisation are to enforce the following requirements:

The finished jetty deck level shall be set no lower than 11.60m above ordinance datum AOD(N) at any point between the mooring head and cliff bank seat locations.

The finished jetty level shall be set no lower than 10.1m AOD at the mooring head.

2.2. Coastal Geomorphology

2.2.A1 Issue

There is a risk that coastal development proposals will interfere with the sediment regime. The impacts in this area are unknown and so a requirement is necessary to ensure appropriate precautions are taken.

2.2.A2 Impact

If proposed coastal works e.g. sea defence wall interfere with coastal processes then they might create problems for coastal protection further along the shoreline.

Proposals could also reduce the natural protection on the frontage of the Hinkley site. The 'pocket beach' at this location can dissipate wave energy, and so help reduce the potential risk of wave overtopping. Any loss of beach material at this particular location, either through inappropriate construction or future natural processes, could increase flood risk to the existing Hinkley Point A site due to the potential for increased overtopping of the wall at the junction between the existing and proposed sea defences.

2.2.A3 Suggested Solution

The sediment regime should be monitored to assess how it behaves. The geographical extent of this monitoring should be agreed in advance, but it should include the 'pocket beach' at the junction

between the existing and proposed sea wall defences (HPA and HPC interface).

A contingency plan should be established to identify the future actions necessary should any detrimental impacts be seen to be occurring. This plan must include set trigger points to ensure that matters are addressed and that it is implemented in a timely manner.

2.2.A4 Requirement

No development shall be carried out until a coastal, monitoring and contingency plan has, after consultation with the Environment Agency, been submitted to and approved by the Local Planning Authority.

No development shall be carried out until a coastal, monitoring and contingency plan, has after consultation with the Environment Agency, been submitted to and approved by the Marine Management Organisation.

Note: Due to the potential cross boundary impact this requirement should be approved by Somerset County, West Somerset District Council, Sedgemoor District Council and the Marine Management Organisation.

2.3. Surface Water Quality

2.3.A1 Issue

Whilst interceptors are proposed for the site preparatory works, they are also considered necessary for the main site building phase as well. At this time there is not requirement covering this issue.

2.3.A2 Impact

The surrounding area is very sensitive to environmentally damaging discharges that might arise during construction works.

2.3.A3 Suggested Solution

Interceptors are a key method of pollution prevention and so we would particularly request their provision to be a requirement.

2.3.A4 Requirement

Prior to being discharged to any watercourse, surface water sewer or soakaway system all surface water drainage from impermeable parking areas and hard standing for vehicles and lorry parks shall be passed through an oil interceptor designed and constructed to have a capacity and details compatible with the site being drained. Roof water shall not pass through this interceptor.

2.3.B1 Issue

The Water Management Plan (WMP) that will be used during the construction period needs to ensure appropriate monitoring is carried out. So that the development does not have an adverse impact on water quality.

2.3.B2 Impact

There is the potential for Holford Stream and Bum Brook water quality to be adversely affected by contaminated run-off from construction activities.

2.3.B3 Suggested Solution

The WMP should include a monitoring plan that proposes regular sampling of the Holford Stream – both up and downstream of the site, to ensure that any impacts from the construction site are quickly identified and mitigation measures are put in place.

2.3.B4 Requirement

No development shall commence until a Level 3 Water Management Plan has, after consultation with the Environment Agency, been submitted and approved by the Local Planning Authority

Please Note: This plan should include full details of an on and offsite monitoring regime and should include phosphorus monitoring.

2.3.C1 Issue

Construction activities could adversely affect local ditches, watercourses and groundwater. There is a risk of pollution from suspended solids, hydrocarbons, concrete leachate and other construction related contaminants.

2.3.C2 Impact

If not managed adequately, construction activities will cause contamination of surface and groundwater.

2.3.C3 Suggested Solution

A surface water management scheme that will manage the contaminants associated with construction activities is required.

2.3.C4 Requirement

No development shall commence until a scheme to treat and remove pollutants from surface water run-off during construction works has been submitted to, and approved in writing by, the Local Planning Authority.

2.3.D1 Issue

Construction of the seawall and the intake and outfall tunnels could lead to pollution of coastal waters and no information has been provided on how this might be avoided or managed.

2.3.D2 Impact

There is a risk of pollution to coastal waters from contaminated runoff which may contain sediment, hydrocarbons and concrete leachate. If this is not controlled and managed effectively, it could adversely affect the water environment.

2.3.D3 Suggested Solution

A surface/ tunnel water management scheme that will manage the contaminants associated with these construction activities is required.

2.3.D4 Requirement

No development shall commence until such time as a scheme to dispose of drainage associated with the construction of the sea wall and the cooling water intake and outfall tunnels has, after consultation with the Environment Agency, been submitted to and approved by the Local Planning Authority..

*The MMO will also need to enforce a similar requirement
No development shall commence until such time as a scheme to dispose of drainage associated with the construction of the sea wall and the cooling water intake and outfall tunnels has, after consultation with the Environment Agency, been submitted to the Marine Management Organisation for approval.*

2.4. Groundwater Quality

2.4.A1 Issue

There are pollution risks, associated with contaminated land, which may occur during dewatering activities.

2.4.A2 Impact

Dewatering could draw contamination from Hinkley Point A and Built Development Area East, and then discharge this contamination to the foreshore of the Severn Estuary, which could be harmful to the designated site. It might also alter the ground and surface water regime within the Wick Moor Site of Special Scientific Interest (SSSI) and so cause harm to the designated site.

2.4.A3 Suggested Solution

These impacts cannot be fully understood beforehand and will only come to light as dewatering progresses thus appropriate measures are needed to manage this risk. This is consistent with the recommendations of Planning Policy 23 Planning and Pollution

Control (PPS 23). A monitoring program should be developed and operated so that any adverse impacts can be quickly recognised and preventative measures put in place to prevent further harm from occurring.

2.4.A4 Requirement

No dewatering shall commence until a groundwater quality monitoring and contingency scheme has been submitted to and approved by the Local Planning Authority.

Please Note: This scheme should comprise of monitoring of hydrochemistry, water levels, and rates of flow. The scheme shall include details of the proposed monitoring positions (on and off site), trigger levels, method of reporting and contingency arrangements, options for mitigation and evaluation, timetabling for implementation of any mitigation, evaluation and review of mitigation measures.

2.5. Ecology

2.5.A1 Issue

Construction activities have the potential to cause detrimental impacts on local ecology. It is important that this is recognised, and that appropriate protective measures are included in proposals are included in NNB GenCo's proposals. .

2.5.A2 Impact

Pollution and harm might be caused to terrestrial and marine habitats including designated sites.

2.5.A3 Suggested Solution

Monitoring will give early identification of changes which potentially could lead to harm to the environment allowing time for mitigation to avoid such harm. Therefore it is recommended that NNB GenCo produce an ecological monitoring scheme, which will allow early identification of any developing issues and ensure that impacts can be quickly mitigated. The following requirement is recommended:

2.5.A4 Requirement

No development shall commence until an ecological monitoring and contingency scheme, to monitor potential impacts on the terrestrial and inter-tidal habitats during construction in or adjacent to the Hinkley Point C development site has, after consultation with the Environment Agency, been submitted to and approved by the Local Planning Authority and /or Marine Management Organisation.

2.5.B1 Issue

Harm could be caused to the marine ecology, and ultimately the integrity of the designated sites, if NNB GenCo's sea water abstraction mitigation proposals do not operate to optimal levels.

2.5.B2 Impact

Pollution and harm may potentially adversely affecting designated habitats and important species.

2.5.B3 Suggested Solution

Prior to abstraction of any water (including that abstracted for any trials) a comprehensive ecological monitoring and contingency plan should be developed which identifies the measures necessary for early identification and mitigation of changes which may lead to environmental or ecological harm. This would ensure that mitigation activities work to the optimal levels necessary to maximise protection of the environment and ecology.

2.5.B4 Requirement

No water abstraction should take place until a marine monitoring and contingency plan has after consultation with the Environment Agency been submitted to and approved by the Local Planning Authority and implemented as agreed.

No water abstraction should take place until a marine monitoring and contingency plan has after consultation with the Environment Agency been submitted to and approved by the Marine Management Organisation and implemented as agreed.

No water abstraction shall occur for operational or safety purposes until the abstraction mitigation systems including the Fish Return System and Acoustic Fish deterrent system have been fully commissioned.

2.5.C1 Issue

Unless appropriately managed, the piling techniques proposed could cause environmental harm to protected species.

2.5.C2 Impact

Several migratory fish, and the fish assemblage of the Severn Estuary, are protected under the Severn Estuary SAC and Ramsar designations. Direct mortality may occur as a result of a significant increase in underwater noise levels due to piling activities.

2.5.C3 Suggested Solution

The main site Environmental Statement stipulates that soft start up techniques could be utilised. We already recognise that this method

of working can help reduce the potential for fish kills, and so we would recommend that any construction piling works along the foreshore adopt this method of operation in an effort to protect fish within the Severn Estuary. The following requirement would ensure that such an approach is adopted.

2.5.C4 Requirement

All main site piling shall be carried out using soft start up techniques.

2.5.D1 Issue

An Acoustic Fish Deterrent (AFD) system is proposed to prevent the impingement of Twaite Shad (a protected species) and other swim bladder fish during cooling water abstraction. The AFD is the only form of mitigation that can protect these types of fish, but the AFD is not proposed to be used at slack water. There is no rationale for such an approach. Unnecessarily high numbers of fish might be impinged, such that these fish then cannot be effectively returned via the Fish Recovery and Return system.

The impact of not operating the AFD system on a continuous basis has not been assessed.

2.5.D2 Impact

If the AFD system is not used at slack water then harm may be caused to protected species.

2.5.D3 Suggested Solution

The simplest way to remove this risk is to operate the Acoustic Fish Deterrent (AFD) system at all states of the tide – and thus on a continuous basis during water abstraction operations. The following requirement is recommended:

2.5.D4 Requirement

The Acoustic Fish Deterrent system is to remain in operation whenever water is being abstracted.

Appendix 3 - Bridgwater A

3.1. Flood Risk

3.1.A1 Issue

The draft DCO does not contain sufficient requirements to ensure that the necessary flood resilience/protection measures are installed at the site.

3.1.A2 Impact

The impact of potential flooding at the site may not be adequately regulated by the LPA if the DCO application is approved as currently submitted.

3.1.A3 Suggested Solution

There is a current outline planning approval (ref: 09/08/00017RM) which contains a number of Conditions that are essentially duplicated by NNB GenCo as suggested requirements within the DCO – namely BRIA11, BRIA12, and BRIA14 and we are satisfied with this approach. However, we would also recommend that proposed requirement BRIA10 is amended to reflect Condition 18 of the extant permission which requires the submission of flood resilience measures and so will better overcome the above issue.

Condition 18 of the extant permission states: No phase or parcel of the development apart from specific operations to be approved in advance in writing by the LPA, shall commence until a scheme for flood resistance for that phase or parcel has been approved in writing by the LPA. The development within that phase or parcel shall be constructed in accordance with the approved details and drawings.

To reflect the need for submission of this information, we recommend inclusion of the following requirement.

3.1.A4 Requirement

No development shall commence until a scheme for flood resilience/resistance has been submitted to and approved by the Local Planning Authority. The development shall be constructed in accordance with the approved details/drawings.

3.2. Groundwater and Contaminated Land

3.2.A1 Issue

NNB GenCo have been unable to access the site to undertake intrusive investigations. Their current assessment of site contamination is heavily reliant on the results of a site investigation

carried out by a third party in 2007. This presents two limitations: Firstly, the earlier investigation involved a much wider geographical area than that of the existing application area, and so is a much less targeted assessment.

Secondly, historically it is known that some potentially contaminating materials have been used on the site, such as vinyl chloride - as identified within NNB GenCo's groundwater and contaminated land assessment - but there has been no analysis of soil or groundwater for such contamination (this has been acknowledged in the Environmental Impact Assessment (EIA)). Further assessment is required before the need for any remediation can be established.

3.2.A2 Impact

There is a risk that contamination could become inadvertently mobilised resulting in pollution of the local land and water environment.

3.2.A3 Suggested Solution

We recommend the inclusion of a requirement to ensure that proper assessment of the site is undertaken, and that any necessary remediation necessary has been carried out, before development occurs.

3.2.A4 Requirement

Prior to the commencement of development approved by this Order (or such other date or stage in development as may be agreed in writing with the Local Planning Authority), the following components of a scheme to deal with the risks associated with contamination of the site shall each be submitted to and approved, in writing, by the Local Planning Authority:

- 1) *A preliminary risk assessment which has identified:
 1. all previous uses of the site.
 2. potential contaminants associated with those uses;
 3. a conceptual model of the site indicating sources, pathways and receptors
 4. potentially unacceptable risks arising from contamination at the site.*
- 2) *A site investigation scheme, based on (1) to provide information for a detailed assessment of the risk to all receptors that may be affected, including those off site.*
- 3) *An options appraisal and remediation strategy based on the site investigation results from (2) giving full details of the remediation measures required and how they are to be undertaken.*
- 4) *A verification plan providing details of the data that will be collected in order to demonstrate that the works set out in (3) are*

complete and which identifies any requirements for longer-term monitoring of pollutant linkages, maintenance, and arrangements for contingency action.

*Any changes to these components would require the express consent of the Local Planning Authority.
The scheme shall be implemented as approved.*

Further, these additional requirements are considered necessary:

Infiltration of surface water drainage into the ground will only be permitted where it has been demonstrated that there is no resultant unacceptable risk to controlled waters and only with the express written consent of the Local Planning Authority. The development shall be carried out in accordance with these principles.

Piling or any other foundation designs using penetrative methods will only be permitted where it has been demonstrated that there is no resultant unacceptable risk to controlled waters and only with the express written consent of the Local Planning Authority. The development shall be carried out in accordance with these principles.

No development shall commence until details and plans demonstrating measures to prevent underground services acting as migration pathways for contaminants has after consultation with the Environment Agency been submitted to and approved by the Local Planning Authority. The development shall be carried out in accordance with the approved details.

Appendix 4 - Bridgwater C

4.1. Flood Risk

4.1.A1 Issue

The draft DCO does not contain sufficient requirements to ensure that the necessary flood risk management measures are incorporated into the proposals (e.g. sustainable drainage systems) to safeguard adjacent land/property from increased flood risks.

4.1.A2 Impact

Flood risks to the site, and/or to neighbouring third party land/property, may be increased and/or not adequately regulated by the LPA if the DCO is granted as currently submitted.

4.1.A3 Suggested Solution

We recommend inclusion of the following requirements into any DCO granted.

4.1.A4 Requirement

A Sustainable Drainage Scheme (SuDS) will be incorporated into the development and be used to ensure that surface water discharge from the development does not increase the risk of flooding elsewhere, as stipulated within Section 7.1.5 of the FRA which proposes a SuDS hierarchy surface water drainage strategy for the site.

Floor levels for the new development will be set at 7.5m AOD(N), or no lower than +150mm above existing ground levels, as recommended by Section 7.1.6 of the FRA.

4.2. Groundwater and Contaminated Land

4.2.A1 Issue

Due to the previous use of the site care must be taken not to release pollution into groundwater and there is a greater risk of this with the piling method proposed for this site than with other methods.

In the past this area was a landfill site taking domestic and industrial waste and so the ground is likely to be contaminated. Piling activities will have to be carefully managed to prevent this contamination from being released to the surrounding environment.

4.2.A2 Impact

Potential migration of landfill contamination could result in pollution of the land and water environments.

The latest proposals involve drilling a hole through the landfill material which would subsequently be filled with a sealant. A second, smaller pile would then be driven through the sealant. We currently envisage two principle ways in which contamination could escape. If this method is used.

First, the borehole is left open when the drilling device is withdrawn. There is nothing to prevent contamination movement at that time. Second, when the concrete pile is driven through the sealant it would have to be completely central within the original hole, and not deviate to one side the other. This would be extremely challenging to achievement and if the pile were not completely central a new pollution pathway could be produced.

4.2.A3 Suggested Solution

NNB GenCo initially discussed the use of a method called Continuous Flight Auger (CFA) piling us. In this method a hole is drilled and as the drilling device is withdrawn the drilled hole is progressively concreted from the bottom upwards. At no point is the hole left open and thus the risk identified above is reduced. This method remains our preferred method as it has been tried and tested in contaminated ground environments to avoid introducing new contamination pathways.

The final piling method adopted will need to be agreed in advance with us and Local Authority and so we recommend the following requirement:

4.2.A4 Requirement

No development shall commence until an acceptable piling scheme has, after consultation with the Environment Agency, been submitted to and approved by the Local Planning Authority.

4.2.B1 Issue

There remains the risk that construction activities on site might mobilise pollutants by disturbing them, or by creating new pathways through by which contamination can migrate.

4.2.B2 Impact

Potential migration of contamination could result in pollution of the land and water environments.

4.2.B3 Suggested Solution

We recommend the inclusion of the following requirements.

4.2.B4 Requirement

Prior to the commencement of development approved by this Order (or such other date or stage in development as may be agreed in writing with the Local Planning Authority), the following components of a scheme to deal with the risks associated with contamination of the site shall each be submitted to and approved, in writing, by the Local Planning Authority:

- 1) A preliminary risk assessment which has identified:
 - 1) all previous uses of the site*
 - 2) potential contaminants associated with those uses*
 - 3) a conceptual model of the site indicating potential contaminants, sources, pathways and receptors; and*
 - 4) potentially unacceptable risks arising from contamination at the site.**
- 2) A site investigation scheme, based on (1) to provide information for a detailed assessment of the risk to all receptors that may be affected, including those off site.*
- 3) An options appraisal and remediation strategy based on the site investigation results from (2) giving full details of the remediation measures required and how they are to be undertaken.*
- 4) A verification plan providing details of the data that will be collected in order to demonstrate that the works set out in (3) are complete and which identifies any requirements for longer-term monitoring of pollutant linkages, maintenance, and arrangements for contingency action.*

Any changes to these components would require the express consent of the Local Planning Authority. The scheme shall be implemented as approved.

No development shall commence until details and plans demonstrating what measures will be taken to prevent underground services acting as migration pathways for contaminants have after consultation with the Environment Agency been submitted to and approved by the Local Planning Authority. The development shall be carried out in accordance with the approved details

Infiltration of surface water drainage into the ground will only be permitted in areas where it has been demonstrated that there is no resultant unacceptable risk to controlled waters and only then with the express written consent of the Planning Authority. The development shall be carried out in accordance with these principles.

Piling or any other foundation designs using penetrative methods will only be permitted in areas where it has been demonstrated that there is no resultant unacceptable risk to controlled waters and only then with the express written consent of the Local Planning Authority. The development shall be carried out in accordance with these principles.

Appendix 5 - Cannington Bypass

5.1. Flood Risk

5.1.A1 Issue

The draft DCO does not contain sufficient requirements to ensure that the necessary flood risk management measures (e.g. providing additional information on water crossings) are incorporated within the application. These measures are to safeguard adjacent land/property from increased flood risks.

5.1.A2 Impact

Flood risks to the site, and/or to neighbouring third party land/property, may be increased and/or not adequately regulated by the LPA if the DCO is granted as currently submitted.

5.1.A3 Suggested Solution

We recommend inclusion of the following requirements in any DCO granted.

5.1.A4 Requirement

There is an existing requirement (CB8) proposed in the draft DCO, that relates to finished road levels. We believe that the wording used is not specific enough and would recommend the following wording instead:

The development shall not commence until full engineering details of the Mill Stream crossing, including all finished road surface levels over the crossing(s) point(s) have, after consultation with the Environment Agency, been submitted to and approved by the relevant Local Planning Authority.

5.2. Sustainability - Flood Risk / Ecology

5.2.A1 Issue

The design of the carriageway is unsustainable due to the high use of culverts. The Environment Agency Policy regarding culverts includes a general opposition to the use of culverts except for access purposes.

5.2.A2 Impact

We seek to avoid the unnecessary use of culverts in watercourses, because they can increase both the risk of flooding and the maintenance requirements for a watercourse. Culverts can also destroy wildlife habitats, damage a natural amenity and interrupt the continuity of the linear habitat of a watercourse. Such wildlife includes otters which are protected under the EC Habitats Directive

and are classed as "European Protected Species" giving them the highest level of species protection.

5.2.A3 Suggested Solution

A more sustainable approach would be to incorporate a clear span bridge in line with the recommendations of the Design Manual for Roads and Bridges (Highways Authority 81/99). A clear span bridge would maintain the river water corridor and allow the free movement of both the river and associated wildlife.

Government policy on planning and nature conservation as set out in Planning Policy Statement 9 (PPS9) requires that planning decisions should prevent harm to nature conservation interests (PPS9 key principles paragraph 1(ii)) and this has not been demonstrated in the DCO application.

Article 10 of the Habitats Directive, and PPS9 (paragraph 12) both emphasis the importance of natural networks of linked corridors to allow movement of species between suitable habitats, and promote the expansion of biodiversity. Such networks may also help wildlife adapt to climate change.

If, instead of incorporating a clear span bridge, the IPC believe that culverts are appropriate then we strongly recommend that NNB GenCo revise and amend their proposals to ensure that an appropriate culvert design, which incorporates the requirements relating to otters into their proposals.

In any case, we would recommend inclusion of the following condition to ensure that the design of the culvert and/or clear span bridge design is appropriately undertaken.

5.2.A4 Requirement

Prior to the commencement of development, details of all bridges and/or culverts proposed shall be after consultation with the Environment Agency be submitted to and approved in writing by the Local Planning Authority. Thereafter the bridges and/or culverts shall be constructed as approved..

Note: Should NNB GenCo revise their current proposals then we would wish to provide the following advice:

- They should bring closer together the flood relief culvert and main box culvert, since we would expect them to be alongside one another.
- They should provide otter ledges on both sides of the main culvert.
- Consideration should be given to a design which realigns the Mill Stream so that the main culvert includes otter ledges. Additional culverts should be included either side so as to provide both flood relief and additional otter passageways.

Any changes to design as a result of these further considerations may mean that flood risk re-modelling is required to assess any changed impacts as a result.

There are two options proposed for the Mill Stream crossing: a culvert or a clear span bridge. Whichever option (culvert or clear span bridge) is deemed most suitable by the IPC we would recommend the following requirement:

Prior to the commencement of development, a plan is required for the protection and/or mitigation of damage to otter populations, a protected species under the EC Habitats Directive. The otter protection plan shall be carried out in accordance with a timetable for implementation as approved.

Appendix 6 - Cannington Park and Ride

6.1. Flood Risk

6.1.A1 Issue

The draft DCO does not contain sufficient requirements to ensure that the necessary flood risk management measures (e.g. appropriate drainage) are incorporated at the site, in order to safeguard adjacent land/property from increased flood risks.

6.1.A2 Impact

Flood risks to the site, and/or to neighbouring third party land/property, may be increased and/or not adequately regulated by the LPA if the DCO is granted as currently submitted.

6.1.A3 Suggested Solution

We recommend inclusion of the following requirements in any DCO granted.

6.1.A4 Requirement

Requirement CP11 should be amended to ensure that information regarding responsibility for, and ongoing maintenance of, the surface water drainage system is provided for approval. We recommend the following:

(1) The development shall not commence until written details of the surface and foul water drainage system (including details of balancing ponds, means of pollution control and details for the future responsibility and maintenance of the surface water drainage system) have, after consultation with the relevant planning authority and the sewage and drainage authority, been submitted to and approved by the Local Planning Authority

(2) The surface and foul water drainage system shall be constructed in accordance with the approved details.

We would also recommend inclusion of the following requirements:

No development shall commence until engineering details for the site access road crossings of the A39 roadside ditch, and the new flood alleviation channel (as illustrated in Appendix D of the FRA), have been submitted to and approved by the Local Planning Authority.

No development shall commence until details of all existing and proposed ground and finished levels (AODN) across the site (e.g. car park surfaces, road levels, building floor levels, landscape bunds, etc.) have, after consultation with the Environment Agency, been submitted to and approved by the Local Planning Authority.

There shall be no development, or general raising of existing ground levels, within a strip of land 8.0m wide adjacent to the top of the banks of the existing flood alleviation channel (which is designated as main river).

There shall be no storage of any materials, including soil, within that part of the site liable to flood, shown in light blue on figure 4 of the submitted FRA (along the sites north-eastern boundary).

Cannington Flood Alleviation Channel

We acknowledge that funding for the Cannington flood alleviation channel has been included in NNB GenCo's community benefit proposals. This funding will partially contribute to the cost of building the scheme. Further discussions are required on the proper governance arrangements for this fund as part of the DCO process.

Appendix 7 - Combwich Wharf

7.1. Flood Risk

7.1.A1 Issue

NNB GenCo has not provided to us with the completed flood risk modelling that they have carried out to inform their FRA for the Combwich site. We reviewed, prior to the DCO application being submitted, a draft model developed by NNB GenCo. We have commented on the model and advised NNB GenCo that, for the reasons stated in our Overarching Comments at 1.1.A1-A3, it is currently unfit for purpose. We are unable to confirm whether the FRA for Combwich is acceptable without provision of a final model and confirmation that the model has addressed our concerns.

7.1.A2 Impact

This means that flood risk to the Combwich site, and any potential impacts to neighbouring third party land/property attributable to the development, may not be fully understood and could be erroneously reported in the current FRA.

There is the possibility that the development itself might be exposed to an unacceptable flood risk and – importantly - that surrounding land/property could suffer from more harmful flooding as a result of the development.

7.1.A3 Suggested Solution

We have previously reviewed the model and submitted technical comments to NNB GenCo. These comments should be addressed and an updated model, and its accompanying documentation, be re-submitted to us for further evaluation. We can then confirm whether the model is fit for purpose and whether the FRA reaches correct conclusions, before the IPC makes its recommendations.

7.1.B1 Issue

The FRA considers tidal flooding from the River Parrett as a result of overtopping or breach of defences and concludes that the proposed freight lay down area will displace water elsewhere, increasing the impact of flooding on existing farmland to the south and due to the lack of modelling data we cannot at this time rule out increased risk properties. The height of the existing River Parrett flood defence embankment is such that the chance of a flood occurring during the duration of this temporary development should not be underestimated. Therefore this could be a very real concern.

7.1.B2 Impact

The new freight lay down hardstanding areas are proposed as constructed on raised platforms, and so elevated above existing (pre-development) ground levels. Should the existing River Parrett flood defence embankments overtop, or breach, whilst the raised platforms are in place, then floodwater will be displaced onto farmland to the south of the site and potentially to residential properties.

It is important to recognise that these conclusions have been drawn from a FRA which is based upon modelling which we have not yet signed off as fit for purpose. When the modelling has been agreed there is every possibility that the adverse impacts associated with flooding, and displaced floodwater, could be worsened and therefore present a risk of greater harm to surrounding residential property. It is therefore important that the flood modelling is submitted to us for sign-off, as identified in 9.1.A1 – 9.1.A3 above.

7.1.B3 Suggested Solution

The model should be submitted to us and reviewed to establish if it is fit for purpose. It will then be up to the IPC to decide on the acceptability of any potential increased flood risk impacts. If the IPC grants this permission then we would recommend measures to limit any worsening of flooding as a result of the development. Such measures would include:

Restoration of the land to previous use. Whilst the proposed new flood bund could be retained in perpetuity as a flood defence improvement for the village, it would be preferable for the DCO to stipulate that the freight area raised platforms should be wholly removed at the end of the temporary development period. By returning the land to agricultural use (permeable surface) and re-setting it at pre-development ground levels the impacts to adjacent farmland can be returned to the current situation.

Alternatively, if the raised platforms remain as part of any post operational scheme, we would expect the landowners to have accepted the increased impacts as described above (and in the FRA) with, or without, any financial compensation. NNB GenCo should also be asked to quantify whether any additional flood mitigation could be carried out in the area to reduce the longer term impacts of any retaining the raised platforms. This obligation could form part of an amended DCO requirement, perhaps at C-16.

7.1.C1 Issue

The FRA for this development proposes that surface water from the freight lay down area drainage system is discharged to the River Parrett through the Tuckett's Clyce outfall. This means that the

drainage system is wholly reliant on the continued efficient working of this outfall. The structure drains agricultural land from the undeveloped site and the wider farmland catchment area – known as Blindman's Rhyne – and is currently considered adequate for this purpose. If the outfall is to instead provide a drainage discharge point for this type of commercial operation then its condition should first be assessed. The FRA does not recognise that the structural condition of this outfall – and its risk of failure – represents a potential flood risk to the drainage system. This is surprising, as the outfall location is chosen (within the previously supplied modelling work) as the most likely point where a breach might occur.

7.1.C2 Impact

This existing outfall structure is currently thought adequate for the discharge of drainage from an agricultural catchment, as any impact associated with its failure is considered minimal. However, the volume of surface water draining through this structure would significantly increase as a result of this proposed development. If it were to fail, or block, then the extent of flooding in the surrounding area could increase. This carries a risk that more harm could be caused to people property and the local nature environment. This is contrary to PPS 25 the key objective of which is to ensure safe development, without increasing flood risk elsewhere (p2 PPS25).

7.1.C3 Suggested Solution

The FRA should have recognised this increased flood risk and the draft DCO should have included a requirement for NNB GenCo to commission an independent structural condition survey of Tuckett's Clyce, prior to the commencement of this development. This requirement should stipulate that any significant structural defects identified should be repaired, at NNB GenCo's cost (through the legal mechanism of a section 106 agreement). The type of repair should first be agreed with the Internal Drainage Board and Environment Agency and undertaken prior to the connection of any new surface water drainage discharge.

This requirement should also propose an enhanced inspection schedule and it should require that NNB GenCo, or their appointed contractor, submit for approval a maintenance schedule for the outfall structure – to include debris clearance (this is recommended to be on a weekly basis). Once approved, this should be operated for the duration of this temporary development.

7.1.C4 Requirement

No development shall commence until an independent full structural survey is carried out on the Tuckett's Clyce structure and, after consultation with the Environment Agency, has been submitted to and approved by the Local Planning Authority.

No development shall be carried out until an inspection/maintenance schedule (and, if necessary, an upgrade programme) of Tuckett's Clyce structure has, after consultation with the Environment Agency, been submitted to and approved by the Local Planning Authority.

7.1.D1 Issue

The draft DCO does contain all the appropriate flood risk requirements to cover our flood risk concerns.

7.1.D2 Impact

Development which could potentially have an adverse effect on flood risk at the site, and/or neighbouring third party land/property, may not be fully capable of regulation by the LPA, if the DCO is granted without these requirements.

7.1.D3 Suggested Solution

We have previously advised requirements and informative notes should be incorporated into the draft DCO, where considered appropriate by the IPC. In particular the following:

7.1.D4 Requirement

No development shall commence until all existing and proposed ground/finished floor levels have, after consultation with the Environment Agency, been submitted to and approved by the Local Planning Authority. The scheme shall be implemented as approved.

No development shall commence until engineering details of all rhyne culvert crossings have, after consultation with the Environment Agency, been submitted to and approved by the Local Planning Authority.

No development shall commence until a scheme setting out the proposed flood defence improvements (including proposals for future maintenance) has, after consultation with the Environment Agency, been submitted to and approved by the Local Planning Authority.

No development shall commence until a scheme setting out the proposed flood defence improvements (including proposals for future maintenance) has, after consultation with the Environment Agency, been submitted to and approved by Marine Management Organisation..

Requirement C-11 should be modified to stipulate that future responsibility and maintenance arrangements for the surface and foul water drainage systems are to be agreed.

The DCO should include a requirement that the raised platform for the freight lay down areas are returned to pre-development ground levels as part of post operation (discussed at requirement C-16).

7.2. Ecology and Flood Risk

7.2.A1 Issue

Construction piling at Combwich may have a detrimental impact on protected species - specifically the Atlantic salmon and the European Eel.

7.2.A2 Impact

Atlantic salmon are protected under the Salmon and Freshwater Fisheries Act, 1975 (SAFFA) and the European eel is protected by the Eel (England and Wales) Regulations, 2009. Both Atlantic Salmon and European Eel are known to migrate up the River Parrett to various upstream tributaries to spawn.

The construction works at Combwich will involve piling around the new berth area within the river. This has been identified as having a potential impact upon these migratory fish.

This increase in underwater noise and vibration from piling works could extend across the whole cross-sectional area of the River Parrett and for some distance up and downstream of Combwich, and so could act as an auditory barrier to fish movement. Direct mortality may also occur as a result of a significant increase in underwater noise levels.

7.2.A3 Suggested Solution

A restriction on piling works would give a sufficient window of opportunity for migrating fish to pass. We therefore suggest that any piling activity be restricted to daylight hours only (defined as sunrise and sunset).

Silent' or 'vibrational' piling methods should be used. If this is not an option then soft start up techniques should be incorporated into the process. This should help deter fish from remaining in the area before the full power of the pile driver is felt through the river.

7.2.B1 Issue

There is a risk that the type of piling used (percussive piling) will damage the flood defences in the area.

7.2.B2 Impact

Percussive piling techniques could have detrimental impacts on the structural integrity of the existing flood defences within the Pill (Tidal

Inlet). Flood risk would be increased should existing flood defences fail as a result of excessive vibration caused by these nearby construction works.

7.2.B3 Suggested Solution

We would require a piling plan/protocol be developed to ensure that these impacts are avoided. This plan / protocol should include:

- The type of piling methods to be used and justification for these methods.
- That any percussive piling required will be carried out in the dry, or at suitable times in relation to daily and seasonal fish migration patterns.
- The use of trench placement, or drill and drive methods - where suitable
- Soft start techniques for any percussive piling that does take place in the water.
- Restrictions on when piling should occur.
- Identification of how surrounding defences will be monitored.

7.2.B4 Requirement

No development shall commence until a scheme for piling has, after consultation with the Environment Agency, been submitted to and approved by the Local Planning Authority.

No development shall commence until a scheme for piling has, after consultation with the Environment Agency, been submitted to and approved by the Marine Management Organisation.

7.2.C1 Issue

Increased boat traffic movements on the River Parrett has the potential to have detrimental effects on the surrounding protected habitats.

7.2.C2 Impact

The movement of vessels up and down the river during the construction and operation of Comwich Wharf could cause erosion on the north side of Comwich and potentially cause further erosion on the adjacent bank of the River Parrett as a result of backwash from vessels.

The inter-tidal habitats around Comwich Wharf are designated as a SAC/ Ramsar/SSSI habitat and they are also a supportive habitat for the Special Protection Area (SPA) birds. The saltmarsh directly opposite is currently in unfavourable condition due to coastal squeeze (Natural England - Nature on the Map, June 2011). The

saltmarsh habitat is also a local biodiversity Action Plan (BAP) habitat.

7.2.C3 Suggested Solution

The speed of vessels, number of vessels and the timing of movements need to be controlled along the River Parrett, within the Parrett Estuary and Bridgwater Bay. An operational protocol should be prepared for freight vessels, incorporating good practice operations that would avoid damaging marine habitats. This is in line with the recommendations in sections 18.7.13/14 (Pg.806) of the Comwich ES¹

Note: this will require discussion with the Bridgwater Harbourmaster. The protocol must include appropriate control of vessel speed to avoid creation of excessive wash and the generation of high return currents that would be likely to cause additional erosion of inter-tidal habitats, benthic invertebrates and saltmarsh.

7.2.C4 Requirement

No development shall commence until a protocol and passage plan (for vessels navigating to Comwich) has, after consultation with the Environment Agency, been submitted to and approved by the Local Planning Authority.

No development shall commence until a protocol and passage plan (for vessels navigating to Comwich) has, after consultation with the Environment Agency, been submitted to and approved by the Marine Management Organisation.

7.2.D1 Issue

Bank Erosion could occur at Comwich - causing damage to protected habitats and increased flood risk.

Any changes to the hydro dynamic regime may adversely impact erosion rates (i.e. increase the erosion rate) of the river banks in this area and adversely affect the integrity of the defences.

Additionally the movements of vessels up and down the river, particularly during construction, could cause erosion on the north side of Comwich and potentially cause further erosion on the adjacent bank of the River Parrett, mainly as a result of backwash from the larger vessels.

We have proposed a condition to control vessel movements along the River Parrett. We also suggest that the river is monitored at Comwich Wharf during the construction period to assess the risk of

¹ Comwich Environmental Statement (ES) Vol.7 Chap.18 (Section 18.7.12/13 Pg.59) supplied by EDF.

increased erosion on Seven Estuary inter-tidal features as a result of increased vessel movement. If damage is found to be occurring then mitigation measures should be implemented.

7.2.D2 Impact

Alterations in erosion rates in the area could result in increased flood risk.

The saltmarsh feature around Comwich Wharf is designated as a SAC/ Ramsar and SSSI habitat. The saltmarsh directly opposite is currently in unfavourable condition due to coastal squeeze (Natural England - Nature on the Map, June 2011). The saltmarsh habitat is also a local BAP habitat. Increased erosion rates may have a detrimental impact to this important habitat.

7.2.D3 Suggested Solution

The Pill (tidal inlet), saltmarsh and inter-tidal habitats around the Comwich Wharf area should be monitored to ensure that erosion rates remain acceptable and no further loss of saltmarsh (or other inter-tidal habitat) occurs.

7.2.D4 Requirement

No development shall commence until a estuarine monitoring and contingency strategy has, after consultation with the Environment Agency, been submitted to and approved by the Local Planning Authority.

No development shall commence until a estuarine monitoring and contingency strategy has, after consultation with the Environment Agency, been submitted to and approved by the Marine Management Organisation.

Appendix 8 - Junction 23

8.1. Flood Risk

8.1.A1 Issue

NNB GenCo has not provided to us with the completed flood risk modelling that they have carried out to inform their FRA for the Junction 23 site. We reviewed, prior to the DCO application being submitted, a draft model developed by NNB GenCo. We have commented on the model and advised NNB GenCo that, for the reasons stated in our Overarching Comments at 1.1.A1-A3, it is currently unfit for purpose. We are unable to confirm whether the FRA for Junction 23 is acceptable without provision of a final report on the model and confirmation that the model has addressed our concerns.

8.1.A2 Impact

Flood risk at the Junction 23 site, and any potential impacts to neighbouring third party land/property attributable to the development, may not be fully understood and the conclusions of the FRA are not substantiated.

There is the possibility that the development itself might be exposed to an unacceptable flood risk and that surrounding land/property could suffer from more harmful flooding as a result of the development.

8.1.A3 Suggested Solution

NNB GenCo should address the concerns we have identified in the modelling and provide us with an updated final report. Once we have confirmed that the model is fit for purpose and provides robust conclusions upon which to base the FRA, we will advise the IPC of our conclusions.

8.1.B1 Issue

The proposed finished platform levels and surface water drainage system are designed for temporary use of the site up until 2020 only. We are concerned that the development will not be removed when stated, as the FRA does not commit to whether the site will be retained as legacy development, or returned to pre-development status. Further to this NNB GenCo's suggested requirements PW27 and J23-15 appear to contradict one another.

If the development were to be retained beyond 2020 then this has potential flood risk implications for the site and surrounding land/property, which are not addressed by the current FRA.

8.1.B2 Impact

If the site was to continue being used beyond 2020 then, without further modifications and/or additional flood risk mitigation works, it would not be fully compliant with PPS25 expectations. This is because the FRA does not make allowances for climate change impacts beyond 2020.

If the Junction 23 development was to be retained then flood risk to the site and surrounding land/property could increase as a result of inadequate site levels and under capacity in drainage systems and the potential for tidal flood water to be displaced elsewhere.

8.1.B3 Suggested Solution

The FRA and draft DCO should commit NNB GenCo to the restoration of the site to its existing form and use. Alternatively, if use is likely beyond 2020, we recommend the following measures:

- The site surface water drainage system design should be amended to make a +20% allowance for climate change (flow or rainfall intensity) in accordance with Annex B of PPS25. The current FRA makes a +10% allowance for climate change to 2020.
- The site's surface water drainage system design should be amended to propose a new surface water gravity connection to the River Parrett for the northern platform areas, rather than the proposed pumped solution offered in the current FRA.
- The site's finished platform levels should be further elevated such that the design takes account of climate change flood levels beyond 2020. Alternatively, there is a preferred strategic flood risk solution for Bridgwater - as laid out in Sedgemoor District Council's Parrett Barrier SPD and Core Strategy documents. This would lessen flood risk to the site and surrounding land/property beyond 2020 and NNB GenCo could make a contribution towards this.

8.1.C1 Issue

Flood defence improvement works are identified in the current FRA and proposed in the draft DCO but whether these can be provided is unsubstantiated. It is unclear as to whether the land required is to be compulsorily purchased or agreements have been reached with the landowner(s). Additionally, draft DCO requirement J23-12 makes no provision for the future maintenance of these flood defence improvement works.

8.1.C2 Impact

The proposed flood defence improvements, although small scale, are considered essential to make the site safe for development to 2020, and to limit any harm to neighbouring land/property by reducing the likelihood of displaced tidal floodwater travelling onto third party land. If these improvement works are not undertaken then flood risk to third parties may increase as a result of the development proposal, contrary to the aims of PPS25.

Because NNB GenCo have failed to specify any arrangements for future maintenance of these improvement works then this potentially increases the liability on the landowner to undertake this maintenance duty.

8.1.C3 Suggested Solution

NNB GenCo should demonstrate to the IPC that they have obtained the necessary agreements with the landowner(s) to enable the flood defence improvements. For information a specific Flood Defence Consent from the Environment Agency to undertake the works will be required.

NNB GenCo should either privately inspect and maintain the works to at least 2020 or provide other means such as providing a commuted sum to the landowner to do so.

8.1.D1 Issue

There are a number of requirements missing from the DCO application that are required to ensure appropriate flood risk management is carried out.

8.1.D2 Impact

Development which could potentially have an adverse effect on flood risk at the site, and/or neighbouring third party land/property, may not be fully capable of regulation by the LPA, if the DCO is granted without these requirements.

8.1.D3 Suggested Solution

We have suggested requirements and informative notes for inclusion in the draft DCO in particular the following:

8.1.D4 Requirement

No development, or raising of ground level, shall take place within 8m of the River Parrett flood defences, unless otherwise agreed by the Local Planning Authority.

No development shall commence until all existing and proposed ground/finished floor levels have, after consultation with the

Environment Agency, been submitted to and approved by the Local Planning Authority. The scheme shall be implemented as approved.

Requirement J23-12 should be modified to require future maintenance arrangements to be agreed.

Dependent upon the outcome of NNB GenCo's attention to 7.1.B3 above, a requirement may be necessary to ensure that the site is reinstated to pre-development ground levels after use.

8.2. Water Quality

8.2.A1 Issue

Construction activities could adversely affect local ditches, watercourses and groundwater. There is a risk of pollution from suspended solids, hydrocarbons, concrete leachate and other construction related contaminants.

8.2.A2 Impact

If not managed properly, construction activities might cause contamination of surface and ground waters.

8.2.A3 Suggested Solution

A surface water management scheme that sets out how the contaminants associated with construction activities are to be managed is required.

8.2.A4 Requirement

No development shall commence until a scheme to treat and remove pollutants from surface water run-off during construction works has been submitted to, and approved in writing by, the Local Planning Authority.

Appendix 9 - Junction 24

9.1. Flood Risk

9.1.A1 Issue

The draft DCO does not include the flood risk requirement that we have previously recommended NNB GenCo include, to cover flood risk concerns at the site.

9.1.A2 Impact

Development which could potentially have an adverse effect on flood risk at the site, and/or neighbouring third party land/property, may not be fully capable of regulation by the LPA, if the DCO is granted without these requirements.

9.1.A3 Suggested Solution

A scheme for the future responsibility and maintenance of the drainage system is required.

9.1.A4 Requirement

No development shall commence until a scheme for the future responsibility and maintenance of the surface water drainage system has been submitted to and approved by the Local Planning Authority.

9.2. Water Quality

9.2.A1 Issue

Construction activities could adversely affect local ditches, watercourses and groundwater. There is a risk of pollution from suspended solids, hydrocarbons, concrete leachate and other construction related contaminants.

9.2.A2 Impact

If not managed adequately, construction activities could cause contamination of surface and ground waters.

9.2.A3 Suggested Solution

A surface water management scheme that will manage the contaminants associated with construction activities is required.

9.2.A4 Requirement

No development shall commence until a scheme to treat and remove pollutants from surface water run-off during construction works has been submitted to, and approved in writing by, the Local Planning Authority.

9.2.B1 Issue

The overarching Water Management Plan (WEP) (s.2.3.43) states that there is no foul sewer available. According to Wessex Water Maps, there is a public main foul sewer running along the length of the main Huntsworth Business Park access road, to which a connection from the proposed park and ride site could easily be made.

9.2.B2 Impact

If the development does not utilise an available existing foul sewer then it may not provide the most appropriate form of foul water drainage.

9.2.B3 Suggested Solution

NNB GenCo should demonstrate that the most appropriate scheme for disposal of foul water is used during the construction and operational phases of this site.

9.2.B4 Requirement

No development shall commence until a scheme for foul and surface water drainage has, after consultation with the Environment Agency been submitted to, and approved, by the Local Planning Authority.

Appendix 10 - Highway Improvements

10.1. Flood Risk and Water Quality

10.1.A1 Issue

The draft DCO does not contain all the appropriate flood risk requirements to cover the flood risk concerns we have regarding this highway work.

10.1.A2 Impact

Development which could potentially have an adverse effect on flood risk at the site, and/or neighbouring third party land/property, may not be fully capable of regulation by the LPA, if the DCO is granted without these requirements.

10.1.A3 Suggested Solution

We have previously advised requirements and informative notes should be incorporated into the draft DCO, where considered appropriate by the IPC. We would also recommend that the following amendments and/or new requirements (and informative notes) are incorporated into the DCO, where considered appropriate:

10.1.A4 Requirement

Requirement PW7 should be amended to require the submission of finished road surface levels and detailed surface water drainage arrangements (existing and proposed) for the individual junction improvement sites.

We would also suggest that point (2) of condition PW7 should be re-worded as follows:

(2) Following consultation with the Highways Authority, further plans for each Highway improvement location, illustrating the existing and proposed finished levels and surface water disposal arrangements, shall be submitted to and approved by the Local Planning Authority.

Appendix 11 - Requirements across all sites

11.1. Construction Environmental Plan

11.1.A1 Issue

A Construction Environmental Management Plan (CEMP) has not been produced by NNB GenCo

11.1.A2 Impact

There is a risk of pollution to watercourses within the area of the various development proposals, due to potentially unsuitable construction practices.

11.1.A3 Suggested Solution

NNB GenCo should submit a Construction Environmental Management Plan (CEMP) to the LPA for review, prior to any construction activity. We recommend the inclusion of the following requirement:

11.1.A4 Requirement

No development shall commence until a Level 4 Construction Environmental Management Plan (CEMP) has, after consultation with the Environment Agency been submitted and approved by the Local Planning Authority

11.2. Site Waste Management Plan

11.2.A1 Issue

A Site Waste Management Plan (SWMP) has not been produced by NNB GenCo. A SWMP is designed to encourage the minimisation of waste, to improve the recycling and recovery of construction and demolition material and to encourage compliance with the duty of care as regards waste. Such a document should tie in with NNB GenCo's Overarching Waste Management Implementation Strategy to ensure a consistent approach to all waste arising across the different sites.

11.2.A2 Impact

If there is no SWMP then there is the potential that waste could be inappropriately managed, leading to complications with disposal and the potential for pollution incidents.

11.2.A3 Suggested Solution

NNB GenCo should submit a Site Waste Management Plan (SWMP) to the LPA for review, prior to any construction activity. We recommend the following requirement:

11.2.A4 Requirement

No development shall commence until a Level 5 Site Waste Management Plan (SWMP) has, after consultation with the Environment Agency, been submitted to and approved by the Local Planning Authority.

11.3. Environmental Incident Response Plan

11.3.A1 Issue

Site Specific Environmental Incident Response Plans (EIRP) have not been produced by NNB GenCo.

11.3.A2 Impact

An EIRP should ensure that the contractor has relevant and appropriate pollution prevention measures in place to prevent/minimise contamination of the local environment in the event of an incident occurring. If this plan does not exist then there is a risk that incidents would not be not appropriately managed, which could result in unnecessary harm being caused to land and the water environment.

11.3.A3 Suggested Solution

EIRPs are vital tools in identifying the potential local receptors, the specific potential sources of contamination and the pollution prevention measures proposed to reduce and control these risks. It should include a detailed plan/map of the site layout, drainage, storage areas, pollution control and various receptors. We recommend the following requirement:

11.3.A4 Requirement

No development shall commence until a Level 5 Environmental Incident Response Plan has, after consultation with the Environment Agency been submitted to, and approved, by the Local Planning Authority.

This plan should include:

Incident response procedures for a plant /equipment failure and failure to contain potentially contaminating materials/uncontrolled discharges.

A detailed site plan showing layout and access details, site drainage arrangements, storage areas, bunded areas, pollution control devices, stockpile locations and any watercourse, spring, borehole, or well situated on, or near the site.

Reporting methods, which indicate that any pollution to drains, watercourses, or groundwater will be reported to the Environment

Agency directly, as well as to NNB GenCo's Site Environmental Engineer.

11.4. Soil Management Plan

11.4.A1 Issue

Excavated soil will be stockpiled on a number of sites and it is intended that this material will then be re-used to return these sites to their original form. This material could, however, be deemed unsuitable for use.

The DEFRA Construction Code of Practice for the Sustainable Use of Soils on Construction Sites p.30. states: "Whenever it is envisaged that the use of the materials will occur in excess of one year from being stockpiled/stored, a time limit has to be agreed with the Environment Agency. The decision relating to the length of storage will be made within the context of the extant planning permission or agreed programme of works. Supporting information may be requested by the Environment Agency."

There has been no time limit agreed, nor have there been any discussions over the final location of the stockpiled soil.

11.4.A2 Impact

Not having a sustainable approach to stockpiled material can result in confusion over that material considered as waste and that intended for re-use, how it will be re-used and when it will be re-used.

11.4.A3 Suggested Solution

We need to understand what material will be stockpiled for more than a year to ensure that it can be deemed suitable for re-use in terms of the amount and type available, and certainty of use.

11.4.A4 Requirement

No development shall commence until a Level 4 Soil Management Plan has, after consultation with the Environment Agency, been submitted to, and approved, by the Local Planning Authority.

This plan should include:

The location, size and time period that the stockpile will be in place.
The final position of any soil stockpile that will be in place longer than one year.

11.5. Groundwater and Contaminated Land

11.5.A1 Issue

Potentially unknown contamination might be disturbed, and released, during construction.

11.5.A2 Impact

If unknown contamination present on the site is found after development has started, but is not appropriately managed, then it could accidentally migrate around the site and to the surrounding area, causing harm to the land and water environment.

Further to this requirement is present we request that it gets expanded slightly to ensure for a more practical application.

11.5.A3 Suggested Solution

We recommend the inclusion of the following requirement to address this risk:

11.5.A4 Requirement

If during development contamination not previously identified is found at the site then no further development (unless otherwise approved in writing by the Local Authority) shall be carried out within the identifiable perimeters of the area in which the suspected contamination is located (subject to agreement by the Local Authority) until the developer has submitted and obtained written approval from the local planning authority for a remediation strategy identifying how this contamination will be dealt with.

Appendix 12 - Landowner Comments

All of the following comments relate to the application pursuant to the Development Consent Order for compulsory purchase powers affecting interests in land owned by the Environment Agency, contained within the application to construct a new twin reactor nuclear power station at Hinkley Point.

12.A1 Issue

In respect of Article numbers 18-24, 26, 28, 29, 31, all of Part 2 and Schedules 1 (Part 1 and Part 1A), 8, 9 and 12 of the DCO, the Environment Agency (as landowner) makes the following general comments.

We responded, as requested to the 24 February 2011 Section 42 consultation letter, by our own letter dated 25 March 2011. This was in response to the proposed DCO Compulsory Purchase Order (“CPO”) land acquisition.

We further responded to the Draft Development Consent Order (draft DCO) in our letter dated 5 September 2011. We noted that NNB GenCo is committed to acquiring land by private treaty and understand that this remains the case, although progress has been significantly delayed and we still await the provision of precise land acquisitions plans. We have, at all times, advanced and welcomed negotiations with NNB GenCo and confirmed that we would dispose of all necessary legal interests in the proposed land required. In our letter of 5 September 2011 we again offered to resolve these matters in advance of any DCO application as NNB GenCo has done with other landowners. We maintain our position and remain willing (as set out in our letter of 25 March 2011) to execute disposal terms for the proposed land required at the earliest opportunity. Consequently, the proposed CPO of the Environment Agency’s land is not necessary or required. The Environment Agency’s specific comments in respect of the separate elements of the proposed CPO identified on NNB GenCo’s land plans are as follows.

Part 1: Categories 1 and 2

Main 2

Such interest in this parcel extends to the “low water mark” as defined by reference to the Environment Agency’s title deeds, namely a Conveyance dated 22 January 1954 and a Subsidiary Vesting Deed dated 7 August 1929 with attached map including an area coloured red, copies of which have been previously provided to NNB GenCo.

However, the Environment Agency does not consider it necessary to grant a discrete interest in relation to its part of Main 2 extending seaward of the mean low water mark due to the practical degree of

geographical coincidence in this particular part as between the lines of the marks: “mean low water” and “low water”, it considers the difference to be de minimis.

Therefore there seems, to us, to be no need to grant any interest in addition to, and outside of the lease area already granted, pertaining to Main 3 (as to which see further below).

In relation to that part of Main 2 to the east of the jetty, and the area of Main 4 (for cooling water infrastructure), we remain willing and propose to offer a lease in like terms to that offered for Main 3.

It follows that our interest in Main 2 area is, in this particular low water area, de minimis and we do not consider it necessary to grant any discrete interest in Main 2.

Main 3

We have granted an Option to NNB GenCo to lease this area (conditional on the grant of the HEO). Now that DCO terms have been published we have agreed to enter into an equivalent agreement to provide for the grant of the DCO. NNB GenCo have now provided a draft agreement to the Environment Agency to deal with this. Accordingly, no CPO of this parcel is necessary.

Main 4

Although detailed land acquisition plans have been requested and are now urgently required from NNB GenCo, heads of terms between the parties are very nearly agreed, and we remain willing to dispose of the required interests at the earliest opportunity. Accordingly, no CPO of this parcel is necessary.

Main Comb 22, Comb 34, J23-A_26, J23-a_32, J23-A_38

Detailed land acquisition plans have been requested and are now urgently required from NNB GenCo so that heads of terms can be finalised. Again, we remain willing to dispose of the required interests at the earliest opportunity. Accordingly, no CPO of this parcel is necessary.

Main Part 2a Category3: Section 10 Compulsory Purchase Act 1965 and Part 3: Easements of other private rights proposed to be interfered with, suspended or extinguished.

Main 7 and Main 9

With regard to the restrictive covenants in the Deed dated 26 February 1958 and the Conveyance dated 28 August 1960 we remain willing to negotiate terms (if appropriate) to address any concerns

NNB GenCo may have, as to which please can NNB GenCo provide full details.

Please can NNB GenCo also provide copies of these documents as our records are incomplete in this regard.

Main J23-A_8, J23-A_24 and J23-A_30 Rights of access over track known as Dunball Drove.

To the extent that the we have proprietary rights of access we do not consider the proposed CPO of them material; the Environment Agency retains statutory powers of access of which NNB GenCo will be aware.

12.A2 Impact

Lack of progress by NNB GenCo with the above-mentioned negotiations (in particular the continued delay in providing detailed land acquisition plans) unduly puts the Environment Agency at risk of compulsory purchase. Further, private sale terms enable the Environment Agency to better protect the environment and meet its statutory duties.

12.A3 Suggested Solution

The Environment Agency remains willing to dispose of, by private treaty, all necessary legal interests in its land at the earliest opportunity. Consequently, the proposed CPO of the Environment Agency's land is not necessary or required.

Appendix 13 - Draft Development Consent Order

13.A1 Issue

We note the Developer's approach to using the model provisions and amending them as and where it believes necessary. However we have the following summary observations/concerns upon the DCO as currently drafted.

It is noted that there is an application for a jetty already made via other legislation, as indicated in the Explanatory Note. We are reserving our position on the jetty pending determination by other decision makers and logical consequences for Part 2 of this DCO application. Should you require further comments on the proposed jetty element of the application at this time then we will provide these.

13.A2 Impact

The issues noted below have various impacts from pure drafting, to the effect of various articles both on their own, and in combination.

It is noted that the DCO is split into two parts. Part 1 for the authorised development and Part 2 for the temporary jetty. As is indicated in the Explanatory Note an application for a Harbour Empowerment Order and Transport and Works Act Order for the creation of the jetty has already been made independently of the DCO. If that application is granted (and survives legal challenge) then Part 2 of the DCO will be removed from this application.

However, such removal is not adequately catered for on the face of the DCO and it is foreseeable that, if any legal challenge were not to conclude until after the DCO were granted, or were granted on different terms, DCO Part 2 would remain and there would effectively be two (potentially competing) harbour works provisions.

It also leads to the position whereby this application is (effectively) for two discrete development consents: one at article 2 and one at article 46.

With regard to the limits of deviation mentioned in article 2 and 46A of the proposed DCO, we are concerned to note that these could affect issues such as flood risk. For example, the jetty structure flood risk modelling will have been undertaken at certain vertical levels and yet the current ability to deviate vertically means that potential risks will not have been assessed. Similarly we would question whether appropriate studies have been undertaken which assess the effects at the wider limits of deviation.

With regard to Article 3A, we would wish to see clarification of the interaction between the developer as both: a) harbour authority; and

at the same time; b) being authorised to operate and use the authorised project (by definition including the jetty).

With regard to Article 8, we would point out that flood defence consent will be needed if breaking into a structure within the street which carries a watercourse.

With regard to Article 14, we understand the rationale for the terms of this article of the draft DCO. However there are unlikely to be watercourses, public sewers or drains “belonging” to the Environment Agency. We have a supervisory role in relation to main rivers and assist with the consenting procedure for some ordinary watercourses. A watercourse will usually ‘belong’ to the riparian owners. Consent to interfere with the land will be needed from the landowner; a flood defence consent will be needed from the Environment Agency or other body where appropriate. Likewise a permit to discharge water may be needed from the Environment Agency in addition to any consent from the riparian owner.

The Infrastructure Planning Commission will appreciate that flood defence consents will be needed for works in relation to, or near, a watercourse, or flood defence structure. A permit will be required to discharge into any watercourse; regardless of to whom it belongs.

Any discharge to a watercourse will need a permit regardless of the safeguards contained in article 14(6). We also believe that article 14 (7) could be more clearly drafted by simply stating that Article 14 does not apply to any discharge to water to which the Environmental Permitting (England and Wales) Regulations 2010 apply.

We would not wish to see article 14(8) brought into force with regard to the consents issued by it since there are set time periods prescribed by statute (with good reason) whereby an appropriate assessment of the impact of any works on the receiving waters may need to be undertaken. For flood defence consents the time period is two months in any event and if the application is not determined within that period it is a deemed consent.

With regard to article 16, we would want safeguards in place to prevent (potentially damaging) trial holes being dug into any structure which forms part of a flood defence. A flood defence consent should be required for this work and we would wish to see similarly protective provisions to those contained at article 16(4).

Articles 27 and 31, potentially impinge upon infrastructure placed in, on, or under the land or a watercourse, placed there by the Environment Agency and these should be protected.

Article 42A, concerns the power to close the harbour. Given the temporary nature we would expect a long stop date to be provided. It

is also at the sole discretion of the developer. We would expect the temporary nature of the jetty, and therefore the closure of the harbour, to be reflected on the face of the Order.

Article 47 refers to the completion of the construction of the jetty. At present construction is a ten year period which can be extended by agreement with the decision-maker. We are concerned that appropriate assessments required under the Habitats Directive are to be carried out as necessary if, during that period, they become out of date and need to be reviewed.

With regard to Article 50, it could be that the raising, or lowering, of surfaces could have an effect on flood risk. Therefore appropriate safe guards should be put in place to prevent this occurring.

Further, we note that the ability to undertake subsidiary works is for the 'construction, or maintenance of, or operation of the undertaking'. Given that the temporary jetty is purely for the purposes of construction we would wish to see it appropriately limited as such. We refer to article 95A as being an appropriate limitation, save for the fact that we believe that 'energy related facilities' should be narrowed to reflect that it is solely electricity produced from nuclear power.

Article 63 refers to the right to dredge. We would expect there to be a saving provision for those works to be undertaken with appropriate consents.

The descriptions of Work No. 2A and Work No.2C in Schedule 1 appear to be different and need to be reviewed.

Appropriate works mentioned within the Schedule may require Flood Defence Consent. Comments concerning requirements may be made elsewhere.

We note that there are no protective provisions drafted at this stage

13.A3 Suggested Solution

Where appropriate we have suggested alternative drafting above, however a number of matters require clarification from NNB GenCo and determination by the IPC on the final drafting of the Order.

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