

**RWE Renewables UK Dogger Bank  
South (West) Limited**

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South (East) Limited**

# **Dogger Bank South Offshore Wind Farms**

**Environmental Statement**

**Volume 7**

**Appendix 20-1 Flood Risk and Hydrology Consultation  
Responses**

**June 2024**

**Application Reference: 7.20.20.1**

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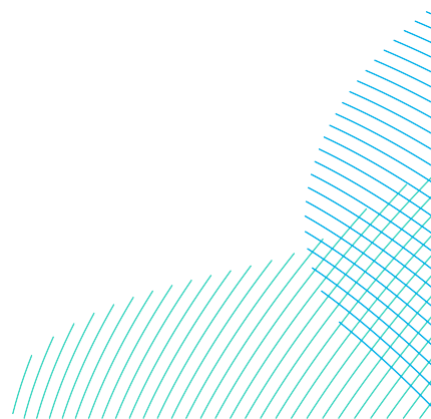
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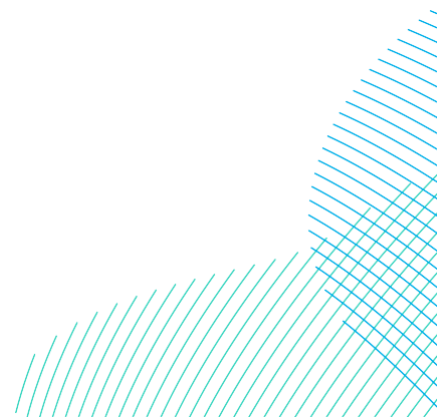
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## Glossary

Term	Definition
Horizontal Directional Drill (HDD)	HDD is a trenchless technique to bring the offshore cables ashore at the landfall and can be used for crossing other obstacles such as roads, railways and watercourses onshore.
Scoping opinion	The report adopted by the Planning Inspectorate on behalf of the Secretary of State.
Scoping report	The report that was produced in order to request a Scoping Opinion from the Secretary of State.
The Applicants	The Applicants for the Projects are RWE Renewables UK Dogger Bank South (East) Limited and RWE Renewables UK Dogger Bank South (West) Limited. The Applicants are themselves jointly owned by the RWE Group of companies (51% stake) and Masdar (49% stake).
The Projects	DBS East and DBS West (collectively referred to as the Dogger Bank South Offshore Wind Farms).



## Acronyms

Term	Definition
ETG	Expert Topic Group
FRA	Flood Risk Assessment
IDB	Internal Drainage Board
LLFA	Lead Local Flood Authority
NPPF	National Planning Policy Framework
PEIR	Preliminary Environmental Information Report
PPG	Planning Practice Guidance
WER	Water Environment Regulations

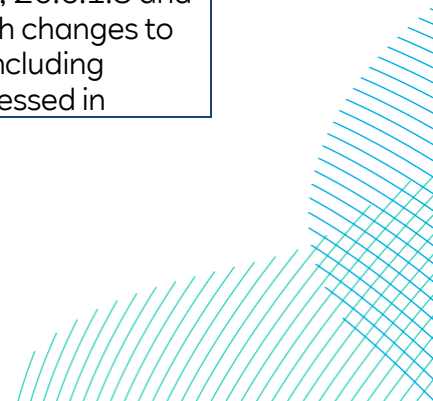
## 20.1 Consultation Responses

### 20.1.1 Introduction

1. This appendix covers those statutory consultation responses that have been received as a response to the Scoping Report (2022), the Preliminary Environmental Information Report (PEIR) (2023) and Expect Topic Group (ETG) meetings.
2. Response from stakeholders and regard given by the Applicants have been captured in **Table 20-1-1**.

Table 20-1-1 Consultation Responses Related to **Volume 7, Chapter 20 Flood Risk and Hydrology (application ref: 7.20)**

Comment	Project Response
<b>Planning Inspectorate Scoping Responses 02/09/2022</b>	
<p>ID 4.3.1 The Inspectorate considers that direct surface water disturbance during operation may be scoped out on the basis that operational activities will not directly disturb surface water bodies therefore significant effects are unlikely.</p>	<p>Direct disturbance of surface water bodies is scoped out for operational activities. <b>Volume 7, Chapter 20 Flood Risk and Hydrology (application ref: 7.20)</b>, section 20.6.2 assesses the potential for supply of contaminants and changes to flows and flood risk during operation.</p>
<p>ID 4.3.2 The Scoping Report (RWE Renewables, 2022) identifies flood risk as a matter to be assessed in the ES for all phases of the proposals, however in terms of coastal flood risk this is mentioned in section 3.3.4.2 the context of risks to the Proposed Development. Changes to coastal flood risk arising from impacts of the Proposed Development e.g., from interactions with existing defence infrastructure or works at possible landfall location, should be assessed within the ES and supporting Flood Risk Assessment (FRA).</p>	<p>Flood risk is summarised in section 20.5.5 and discussed in detail in <b>Volume 7, Appendix 20-4 Flood Risk Assessment (FRA) (application ref: 7.20.20.4)</b>. The FRA includes an assessment of coastal flood risk and the presence of defences at the possible landfall location. The FRA has been based on publicly available data related to flood risk, and data requested from the Environment Agency and East Riding of Yorkshire Council (Lead Local Flood Authority).</p>
<p>4.3.3 No direct reference is made to the potential requirement for dewatering of groundwater, or the temporary or permanent alteration of surface water bodies, within the Scoping Report. The ES should provide a full</p>	<p>Impacts and effects on surface water bodies and groundwater are discussed in sections 20.6.1.1, 20.6.1.5 and 20.6.2.2 which relate to impacts associated with changes to surface and groundwater flows and flood risk (including dewatering). Groundwater impacts are also assessed in</p>

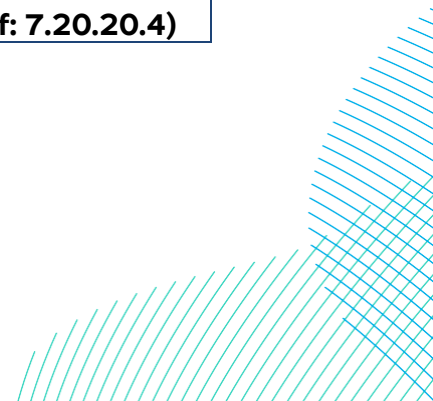


Comment	Project Response
description of any such activities and present an assessment of any resulting likely significant effects.	<b>Volume 7, Chapter 19 Geology and Land Quality (application ref: 7.19).</b>
<b>Environment Agency Scoping Responses 02/09/2022</b>	
<p>Do you agree with the characterisation of the existing environment?</p> <p>Paragraph 626 – it does not appear to list all main rivers that are to be crossed, but perhaps this is due to the use of localised names. The Environment Agency would be happy to check a route plan shapefile against a map of our main rivers. This would aid discussion around river crossings, available modelling data, our assets, as well as any proposed or ongoing projects in these areas.</p>	<p>The existing environment section has been updated and lists all Main Rivers and Internal Drainage Board (IDB) drains that would be crossed by the Onshore Development Area (section 20.5).</p>
<p>Have all the relevant data sources been identified within the Scoping Report?</p> <p>We note that the majority of data sources we previously mentioned have been picked up. In addition, we would like to flag to the applicant that the National Coastal Erosion Risk Mapping (<a href="https://data.gov.uk/dataset/7564fcf7-2dd2-4878-bfb9-11c5cf971cf9/national-coastal-erosion-risk-mapping-ncerm-national-2018-2021">https://data.gov.uk/dataset/7564fcf7-2dd2-4878-bfb9-11c5cf971cf9/national-coastal-erosion-risk-mapping-ncerm-national-2018-2021</a>) may be of relevance to their assessment. LiDAR information may also</p>	<p>Publicly available data sets, including flood extents and LiDAR data, have been used within <b>Volume 7, Appendix 20-4 FRA (application ref: 7.20.20.4)</b> to consider all sources of flooding, in accordance with the National Planning Policy Framework (NPPF) and Planning Practice Guidance (PPG) for Flood Risk and Coastal Change. The FRA includes an assessment of the relevant climate change scenarios.</p> <p>The <b>FRA (Volume 7, Appendix 20-4 (application ref: 7.20.20.4))</b> has been based on publicly available data related</p>

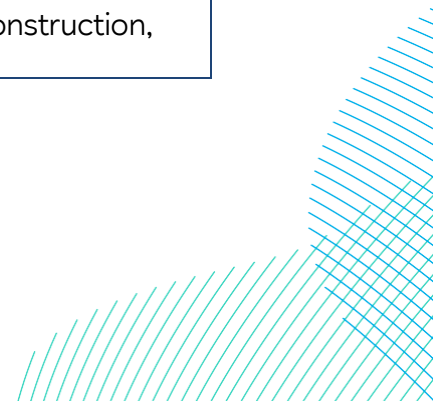




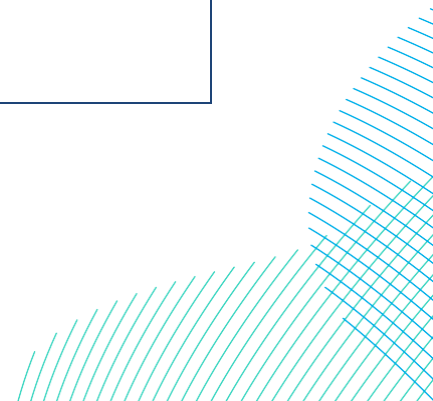
Comment	Project Response
<p>be useful. As well as speaking to the lead local flood authority about surface water flooding, we also suggest speaking to them about groundwater flooding, as they may hold more detailed local information.</p> <p>The applicant should contact the Environment Agency to obtain any relevant flood risk modelling evidence that we hold. Please note that there may be gaps relating to the type and content of detailed modelling that may be available. You may need to commission additional modelling where relevant to your development, for example where you require a credible maximum climate change scenario.</p>	<p>to flood risk, and data requested from the Environment Agency and East Riding of Yorkshire Council (Lead Local Flood Authority). Mapping was also provided by the Association of Drainage Authorities (Beverley and North Holderness Internal Drainage Board).</p> <p>National Coastal Erosion Risk Mapping is used in <b>Volume 7, Chapter 8 Marine Physical Environment (application ref: 7.8)</b> and referred to in this chapter, as appropriate.</p>
<p>Have all the potential impacts on flood risk and hydrology resulting from the Projects been identified in the Scoping Report?</p> <p>During construction, it is also worth noting that depending on how watercourses are going to be crossed, the temporary works could cause a localised increase in flood risk. The applicant should consider scoping this in.</p> <p>During operation and maintenance – any above ground structures could be subject to flooding at certain locations,</p>	<p>Flood risk associated with trenched crossings (e.g., use temporary dams, culverts, capacity of pumps and flumes) have been assessed in section 20.6.1.1. Impacts associated with decommissioning are assumed to be no worse than those considered for construction.</p> <p>Potential impacts on surface and groundwater flows and flood risk during operation are assessed in section 20.6.2.2.</p> <p>Flood risk, including at the landfall location, is assessed in <b>Volume 7, Appendix 20-4 FRA (application ref: 7.20.20.4)</b></p>



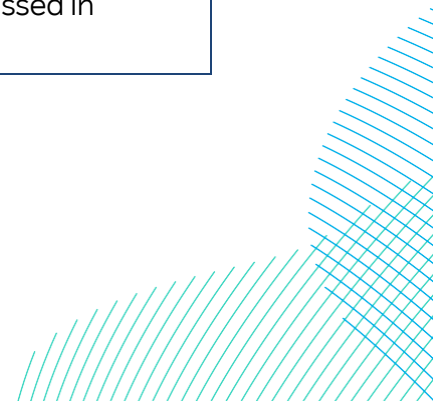
Comment	Project Response
<p>therefore the flood risk to the project as well as from the project should be considered, and scoped in.</p> <p>During decommission – same comment as above for construction. Depending on how watercourses are going to be crossed, the temporary works could cause a localised increase in flood risk, so the applicant should consider scoping this in. There doesn't seem to be any consideration on flood/coastal risk at the possible landfall location. This needs to be scoped in.</p>	<p>for all stages of the Projects comprising construction, operation and, where appropriate, decommissioning.</p>
<p>Do you agree with the impacts that have been scoped in (or scoped out) of further assessment?</p> <p>In addition to our comments above, due to the nature of flood risk in the catchment, consideration must also be given to residual flood risks, for example pump failure or breach. The applicant should also consider the role of existing flood defences. We would recommend a conversation with us once the cable corridor route been finalised to better understand how existing or future flood defences may affect the chosen option. This may include, for example, the removal of certain flood defences, or a change to the way flood risk is managed in parts of the interest area.</p>	<p>Flood risk, including the residual risk resulting from breaches or pump failures, is assessed in <b>Volume 7, Appendix 20-4 FRA (application ref: 7.20.20.4)</b>.</p> <p>The FRA has been based on publicly available data related to flood risk, and data requested from the Environment Agency and East Riding of Yorkshire Council (Lead Local Flood Authority). Mapping was also provided by the Association of Drainage Authorities (Beverley and North Holderness Internal Drainage Board).</p> <p>The Flood Risk and Hydrology Expert Topic Group has been consulted throughout the Projects. Consultation has been undertaken on all stages of the Projects from construction,</p>



Comment	Project Response
<p>We would also like to see as part of any assessment more information on the potential interaction and impact on flood risk infrastructure. This should include:</p> <ul style="list-style-type: none"> <li>• How any option would interact around any existing flood risk infrastructure, for example cable crossings below flood defences or watercourses.</li> <li>• Interaction with any surface operations (e.g., ground investigations or construction activities) where this could affect access to inspect, maintain or operate flood risk infrastructure. This should also include more details on the construction technique, e.g., reception pits, compound locations and access requirements. We understand these details would become clearer once a refined corridor is identified.</li> <li>• Further details within a Construction Environmental Management Plan (or similar) looking at the interests of flood and coastal risk management, ensuring that existing flood infrastructure is not affected by any movement, damage, etc.... caused by the construction works or permanent structures associated with the development.</li> </ul>	<p>operation through to decommissioning for all elements of the Projects from the landfall to the onshore substations.</p> <p>An <b>Outline Code of Construction Practice (OCoCP) (Volume 8, application ref: 8.9)</b> is included as part of the DCO application. The <b>OCoCP (Volume 8, application ref: 8.9)</b> contains control measures and the standards that will be implemented to control the impacts on the environment.</p>



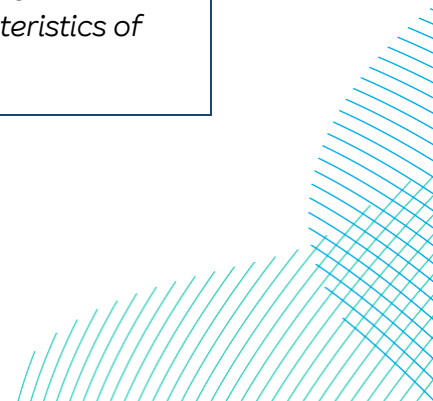
Comment	Project Response
<p>Do you agree with the proposed approach to assessment?</p> <p>We are pleased to see that all sources of flood risk both to and from the project will be considered. For clarity, we would also expect tidal flood risk to be considered.</p> <p>Flood risk within the East Yorkshire catchment is complex, and therefore further discussion as this project progresses would be beneficial, to allow us to give more refined advice as more details become available.</p> <p>We would advocate that consideration is given to an iterative and proportionate approach to EIA. We would anticipate being able to discuss this approach as the project progresses and refined details are available for comment.</p> <p>Will there be any storage of material in the floodplain during the project, if so the impacts of this on flood risk must be considered. What is the lifetime of this development?</p>	<p>The impact of flood risk from all sources to all elements of the Projects have been assessed in <b>Volume 7, Appendix 20-4 FRA (application ref: 7.20.20.4)</b>, in accordance with the requirements of both the NPPF and PPG for Flood Risk and Coastal Change.</p> <p>The Flood Risk and Hydrology Expert Topic Group has been consulted throughout the Projects. Consultation has been undertaken on all stages of the Projects from construction, operation through to decommissioning for all elements of the Projects from the landfall to the onshore substations.</p> <p>The exact location of temporary construction compounds, and other supporting facilities, within the Onshore Development Area will be refined as the Projects progress. As such, the ES and accompanying FRA (<b>Volume 7, Appendix 20-4 (application ref: 7.20.20.4)</b>) will be updated to reflect this and assess any associated risks.</p> <p>The lifetime of the Projects is 30 years (or 32 years for a sequential scenario).</p>
<p>The Scoping Report indicates that impacts on surface water quality, groundwater quality and designated bathing waters are to be included in the Environmental Statement (ES).</p>	<p>Potential impacts on surface and groundwater water quality, including the storage of contaminants, are assessed in sections 20.6.1.2, 20.6.1.4 and 20.6.2.1.</p>



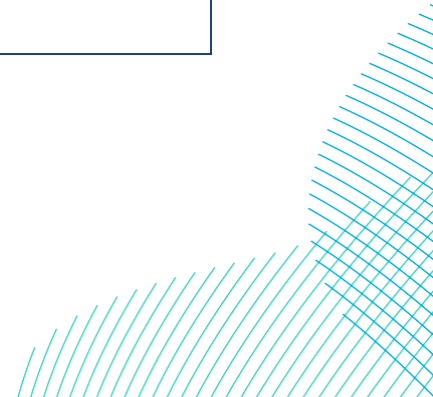
Comment	Project Response
<p>Storage of contaminants is included. These are the main areas of concern, especially during the construction phase.</p> <p>However, we note there is no mention of requirements of environmental permits for construction activities (for discharges of trade/sewage effluents or surface run-off from their activities). These will need to be considered when specific locations are decided on.</p>	<p>Survey data on offshore contaminants is included <b>Volume 7, Chapter 8 Marine Physical Environment (application ref: 7.8)</b>.</p> <p>Potential impacts on bathing waters are assessed in <b>Volume 7, Appendix 20-3 (WER Assessment) (application ref: 7.20.20.3)</b>.</p> <p>Permit requests will be submitted to the Environment Agency or relevant consenting authority post consent (once a contractor has been appointed).</p>
<p><b>Expert Topic Group meeting 20/07/2023</b></p>	
<p>Recommended the use of HDD for all river crossings not just the Main Rivers but all the watercourses along the cable route. As mentioned by the IDB to avoid problems like in the past with slips and works affecting watercourses, HDD will also enable continued conveyance of flows particularly in the winter.</p>	<p>Details of all watercourse crossing are provided in <b>Volume 7, Appendix 5-2 Obstacle Crossing Register (OCR) (application ref: 7.5.5.2)</b>.</p> <p>Consultation on watercourse crossings has been undertaken at ETGs. A list of all watercourse crossings in the IDB catchment area has been issued.</p>
<p>Question asked if there was a plan for the land drains which might be disturbed in the middle of fields as works proceeds through them.</p>	<p>The strategy for controlling surface water runoff is detailed in the <b>Outline Drainage Strategy (Volume 8, application ref: 8.12)</b>. The report gives details of the outline drainage</p>



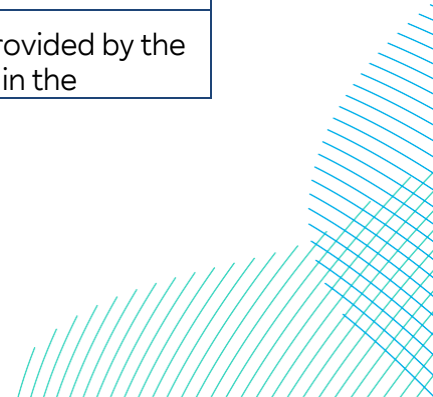
Comment	Project Response
	<p>strategy for the onshore convertor station(s) and the pre and post construction land drainage, located within the Onshore Development Area. This strategy will form the basis of the detailed drainage scheme would be submitted to the Lead Local Flood Authority (LLFA) at East Riding of Yorkshire Council (EYRC) for approval prior to the commencement of construction of the Projects, in consultation with the Environment Agency, Internal Drainage Boards and the relevant sewerage and drainage authorities.</p> <p>In addition to the pre and post construction land drainage scheme described above, a Surface Water Management Plan (SWMP), setting out the requirements for temporary surface water drainage during construction would also be prepared by the contractor as part of the detailed Code of Construction Practise (CoCP), should any temporary dewatering be required.</p>
<p><b>Section 42 Consultation – Environment Agency July 2023</b></p>	
<p>Lifetime of development – It has been stated previously that you believe the lifetime of this development will be 25 years, which is an extremely short time for such a large and complex investment. We request that although you are working to a 25-year lifetime you assess for a longer lifetime for any above ground infrastructure, such as the</p>	<p>Reference has been made to the Planning Practice Guidance and the guidance on development lifetime provided in Paragraph 006 which states: <i>“The lifetime of a non-residential development depends on the characteristics of</i></p>



Comment	Project Response
<p>onshore substation(s). Please note that the revised Planning Practice Guidance states that non-residential development should include an assessment of at least 75 years. We highlight the need for full justification for the lifetime, and that this may have a bearing on the evidence required and/or need for further modelling. We recommend that a longer lifetime is considered, to ensure that the development would remain safe under a longer lifetime and/or additional climate change impacts.</p>	<p><i>that development but a period of at least 75 years is likely to form a starting point for assessment.”</i></p> <p>The Applicants note the characteristics of this type of project differ from other non-residential development and is governed by the lifetime of key elements of the Projects. As such it has been confirmed within <b>Volume 7, Chapter 5 Project Description (application ref: 7.5)</b> that the Projects will have an operational lifetime of up to 30 years. To ensure consistency in approach the Flood Risk Assessment (FRA) has adopted the same development lifetime in its assessment.</p>
<p>Flood Risk - Where relevant, your assessment of future flood risk should incorporate a credible maximum scenario.</p>	<p>The FRA includes an assessment period of 30-32 years in line with the lifetime of the development.</p> <p>The guidance on the application of the credible maximum scenarios for NSIPs relates to sea level rise and wave height (coastal flooding) and peak river flow (fluvial flooding) allowances and should be considered as a sensitivity test.</p> <p>Given the only above ground infrastructure, during the operational phase, is the onshore converter station, which is located in Flood Zone 1 (i.e. at low risk from either coastal or fluvial flooding) it is not considered appropriate to consider the credible maximum scenario further.</p>

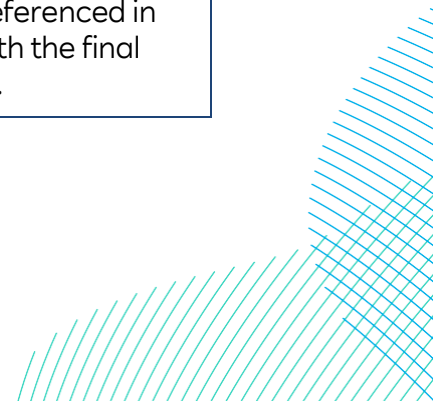


Comment	Project Response
<p>Flood Risk - We note that the Landfall Zone (chapter 5, 5.5.1, 200) extends inland to allow the TJBs to be located beyond areas at risk of coastal erosion. We also note that trenchless techniques are to be used at landfall. You should identify a construction methodology for the landfall works that minimises the impact of your development on the environment. The east coast landfall section includes beaches and cliffs, and some hard engineered structures. When finalising a suitable method of works, you should consider the impact on:</p> <ul style="list-style-type: none"> <li>• Nearshore coastal processes (including any trenching or temporary activities that could disrupt sediment transport)</li> <li>• Natural features that influence wave action and local flood risk – for example cliffs and beaches</li> <li>• Any temporary access requirements (e.g., ramps) to the coast, and whether this could introduce a mechanism for increased wave impacts (e.g., ramping or spray).</li> <li>• Other existing development, ensuring no increase in flood risk.</li> </ul>	<p>The Landfall Zone has been designed to account for the costal erosion rates, provided by the Coastal Risk Management Authority in October 2023, Transition Joint Bays (TJBs) will be constructed a suitable distance from the coastline to avoid coastal erosion for the lifetime of the Projects. At the detailed design stage, the location of the compound for the trenchless crossing technique, most likely HDD will be selected based on the outputs of further geotechnical investigation and physical processes modelling that would consider the nearshore coastal processes. This work will also assess the proposed works taking place in the intertidal area should, the ground conditions only be suitable for a short trenchless installation technique that would exit in the intertidal (between MHWS and MLWS) - further details on worst case intertidal works will be included in the ETG presentation.</p> <p>No direct access to the beach from the Landfall Zone is proposed. An emergency beach access and small compound have been proposed using an existing access track, north of Ulrome. Works would be required to widen the existing access tack.</p>
<p>Flood Risk - You will need to consider the implications of coastal change on your chosen landfall siting and</p>	<p>Coastal monitoring data from October 2023 provided by the Coastal Risk Management Authority is included in the</p>

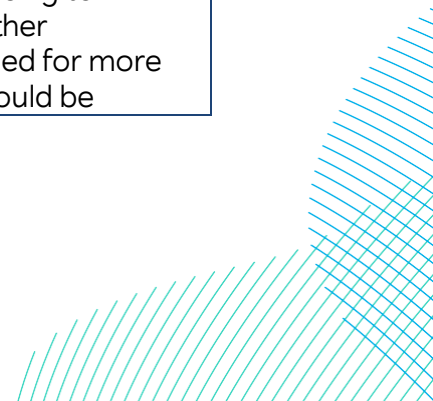




Comment	Project Response
<p>construction methodology. This will also need to consider the impact on coastal processes both within the development site, and the consequences elsewhere. We recommend you also speak to East Riding of Yorkshire Council as the Coastal Risk Management Authority to obtain latest data and projections on coastal erosion and change. You should also consider precautionary estimates for coastal change, ensuring you set back any infrastructure where coastal erosion is expected to occur. Where relevant, you should consider a credible maximum for coastal change, and consider any implications this may have on flood risk within your site(s). The National Coastal Erosion Risk mapping (<a href="https://data.gov.uk/dataset/7564fcf7-2dd2-4878-bfb9-11c5cf971cf9/national-coastal-erosion-risk-mapping-ncerm-national-2018-2021">https://data.gov.uk/dataset/7564fcf7-2dd2-4878-bfb9-11c5cf971cf9/national-coastal-erosion-risk-mapping-ncerm-national-2018-2021</a>) may be of relevance to your assessment.</p> <p>Please note that a new national product is in the process of being developed (NCERM2) mapping coastal erosion. This is likely to be available by the end of the year.</p>	<p>assessment of historic and future coastal erosion, at the landfall location. This has also been compared to the outputs of National Coastal Erosion Risk Mapping when considering the Landfall Zone design.</p> <p>The impacts on coastal process are included in <b>Volume 7, Chapter 8 Marine Physical Environment (application ref: 7.8)</b>.</p>
<p>Flood Risk - 5.1.6.4 bullet points - where the cable is crossing defences this will likely require monitoring to ensure there is no detrimental impact to defences (e.g., no settlement occurs as a result of trenchless techniques). This</p>	<p>The need for a monitoring programme during construction, to ensure flood defences continue to function, is referenced in the <b>OCoCP (Volume 8, application ref: 8.9)</b>, with the final CoCP secured as a requirement within the DCO.</p>



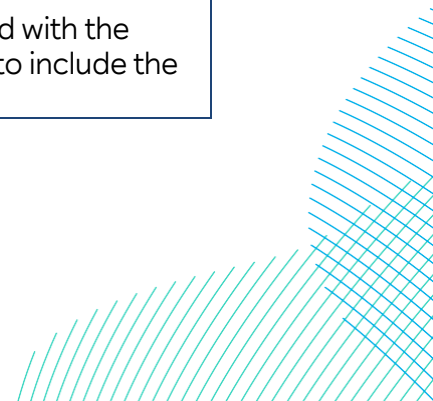
Comment	Project Response
<p>is to ensure that the standard of protection of defences is maintained.</p>	
<p>Flood Risk - Please note that the Environment Agency has land ownership in the vicinity of the preferred cable route at Holderness Drain, the River Hull &amp; Beverley and Barmston Drain. We recommend discussing the necessary requirements with our Estates Team as soon as is possible.</p>	<p>Noted.</p>
<p>Flood Risk - We note that trenchless techniques are to be used for all main river crossings. All associated construction activities (e.g., reception pits and compounds) should be located at least 20metres from any 'main river,' or from the nearest toe of any flood defences. Where practical, we would advise ensuring all construction activities are located outside the floodplain, but if this is not possible you should consider the nature of risk and ensure there is suitable mitigation in place. We would ask that the depth of any permanent infrastructure below watercourses is maximised to minimise potential interaction with current, or any planned, infrastructure (e.g., sheet piles). You will also need to take account of any existing flood risk strategy, or any new emerging strategies. Specifically, we highlight ongoing review of options associated with flood defences within the catchment which could include removal</p>	<p>All trenchless construction activities would be located at least 20m from any 'Main River,' or from the nearest toe of any flood defences and would be installed at a depth to minimise potential interaction with current, or any planned, infrastructure (e.g., sheet piles).</p> <p>Where soil storage in Flood Zones 2 and 3 is unavoidable, spoil storage areas will be located such that they don't block or divert existing surface water flow paths. Topsoil and subsoil will be stored in separate stockpiles in line with DEFRA Construction Code of Practice for the Sustainable Use of Soils on Construction Sites PB13298, or the latest relevant available guidance. Once the stockpile has been completed the area should be cordoned off with secure fencing to prevent any disturbance or contamination by other construction activities. If the soil is to be stockpiled for more than six months, the surface of the stockpiles would be</p>



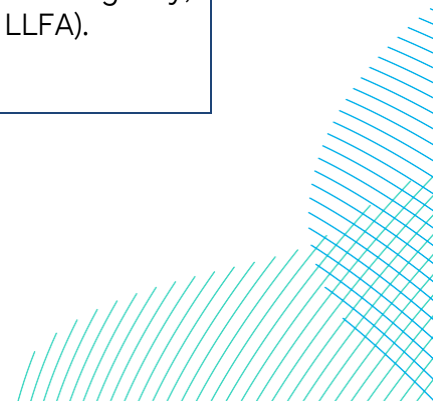
Comment	Project Response
<p>or relocation of flood defences, although no decisions have been taken at this time.</p>	<p>seeded with a grass/clover mix to minimise soil erosion. In the worst case soil storage may need to be up to six years.</p> <p>The Projects will take account of any existing flood risk strategy, or any new emerging strategies, such as potential removal / relocation of flood defences, where this is identified.</p>
<p>Flood Risk - A number of ordinary watercourses exist within the study area, and we recommend you also speak to relevant Internal Drainage Boards and the Lead Local Flood Authority. It would be useful to align expectations around watercourse crossing methodology and consider the overall impact on flood risk management given the interconnection of drainage and flood risk within the study area.</p>	<p>Crossing methods will be agreed with the relevant authority at the detailed design stage, to include the Environment Agency, IDB and East Riding of Yorkshire Council (as the LLFA).</p> <p>The proposed crossing method has been included in the OCR <b>(Volume 7, Appendix 5-2 (application ref: 7.5.5.2))</b>. All Environment Agency Main Rivers will be crossed by trenchless crossing, whilst smaller drains and watercourses (i.e. Ordinary Watercourses) have been proposed to utilise an open cut crossing methodology.</p> <p>The following IDB drains will be crossed by open cut (trenching):</p> <ul style="list-style-type: none"> <li>• Dunnington Sewer;</li> <li>• Arnold and Riston Drain (note there is a preference for HDD at this location but all options are retained); and</li> <li>• South Bullock (N. Branch - Diggins Arms).</li> </ul>



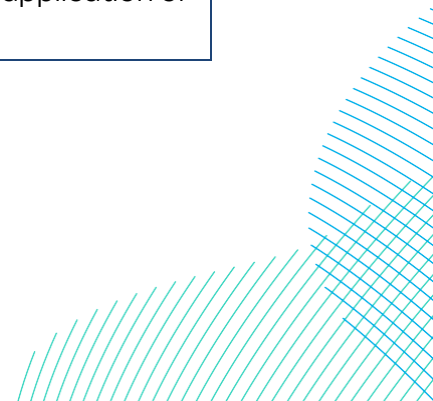
Comment	Project Response
	<p>There are two trenchless crossings of IDB drains:</p> <ul style="list-style-type: none"> <li>• Turf Gutter &amp; Eske River Side Drain; and</li> <li>• Skipsea Drain (West Branch).</li> </ul> <p>There are two haul road only crossings of IDB drains:</p> <ul style="list-style-type: none"> <li>• Storkhill Drain; and</li> <li>• South Bullock (S. Branch - Chalk Arm).</li> </ul> <p>There a further 15 crossings (trenched and trenchless) within the IDB catchment. These are drains managed by riparian owners, not the IDB.</p> <p>There are seven HDD crossings of Main Rivers located in the IDB catchment area.</p> <p>Three sections of ordinary watercourse will be subject to redirection at the Onshore Converter Station(s). These along with surface water drainage from the site will be managed in accordance with the measures described in the <b>Outline Drainage Strategy (Volume 8, application ref: 8.12)</b> (issued for review ahead of the ETG).</p>
<p>Flood Risk - We would expect to see that your crossing methodology considers the impact of flood risk on your site, and flood risk from your site; ensuring it will not increase</p>	<p>As noted above, crossing methods will be agreed with the relevant authority at the detailed design stage, to include the</p>



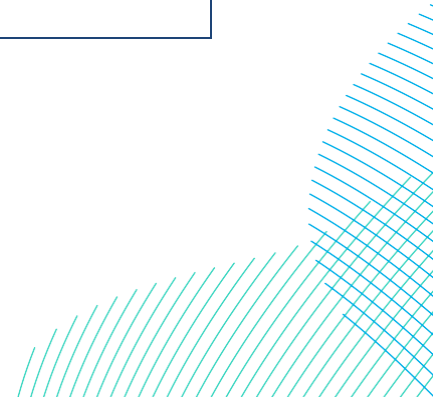
Comment	Project Response
<p>flood risk to others. A number of existing crossing points exist, and we would expect to see the number of watercourse crossing locations minimised. Where temporary crossings are required, we would ask for further details ensuring these will not increase flood risk; and are removed without causing damage to watercourses or flood defences. Where crossings are required, where possible we would expect to see clear span crossings used (especially on main rivers). The Environment Agency are likely to object to the use of culverts, in line with our position on their usage. Many of the 'main rivers' within the study area are unlikely to suitable candidates for culverts. Consideration will also need to be given to access to flood defences and avoiding or minimising potential damage to flood infrastructure (including flood embankments).</p>	<p>Environment Agency, IDB and East Riding of Yorkshire Council (as the LLFA).</p> <p>The proposed crossing method is included in the OCR (<b>Volume 7, Appendix 5-2 (application ref: 7.5.5.2)</b>). Key watercourse crossings are listed above, detailed in the ES chapter (<b>Figure 20-5 and Figure 20-6 (application ref: 7.20.1)</b>) and shown on a figure to accompany <b>Volume 7, Appendix 7-4 FRA, Figure 20-4-1 (application ref: 7.20.20.4)</b>.</p> <p>As noted above, all 'Main Rivers' would also be crossed by a trenchless technique (likely HDD) and access to flood defences would be maintained throughout. Where we are required to pass under and Environment Agency flood defences suitable monitoring requirements would be agreed with the Environment Agency, as indicated in the <b>OCoCP (Volume 8, application ref: 8.9)</b>, with the final CoCP secured as a requirement within the DCO.</p>
<p>Flood Risk - The following aspects are likely to be of interest to the Environment Agency around flood risk aspects of your project during construction:            (i) Crossing locations around watercourses / flood defences            a. Current infrastructure</p>	<p>Crossing methods will be agreed with the relevant authority at the detailed design stage, to include the Environment Agency, IDB and East Riding of Yorkshire Council (as the LLFA).</p>



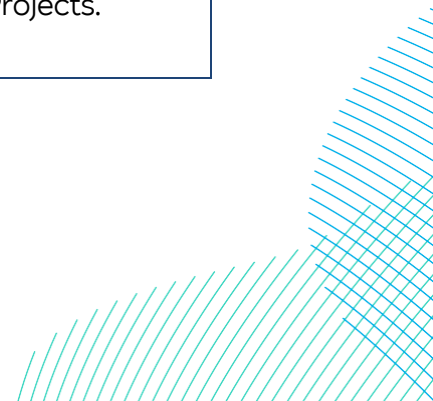
Comment	Project Response
<p>b. Future infrastructure                      (ii) Working corridor within flood risk areas                      (iii) Need for EPR Flood Risk Activity Permits &amp; Byelaws (plus any other consents, e.g., IDB)                      (iv) Estates / Environment Agency A land ownership                      (v) Haul roads</p>	<p>The proposed crossing method is included in the OCR (see <b>Volume 7, Appendix 5-2 (application ref: 7.5.5.2)</b>). Key watercourse crossings are listed above, detailed in <b>Volume 7, Chapter 20 Flood Risk and Hydrology (application ref: 7.20)</b> and shown on <b>Figure 20-5 (Volume 7, application ref: 7.20.1)</b>.</p> <p>The most extensive area of Flood Zone 3 that is crossed by the Projects is located to the north east of Beverley and also broadly coincides with the IDB catchment. The onshore export cable corridor through this area would be 75 to 90m in width.</p> <p>A haul road would be located within the Onshore Development Area and would be 5m wide (increasing to 8m at passing places) (<b>Volume 7, Chapter 5 Project Description (application ref: 7.5)</b>). Construction of the temporary haul roads will include placement of suitable graded imported material onto a prepared sub-soil, potentially with a reinforcing geogrid(s) and / or a geotextile separator.</p> <p>Protective provisions have been included in the <b>Draft DCO (Volume 3, application ref: 3.1)</b> and shared with the Environment Agency for agreement with the disapplication of the permitting regime.</p>



Comment	Project Response
<p>Flood Risk - Works in, over, under or close to main rivers or flood risk infrastructure are also likely to require Flood Risk Activity Permits under the 2016 Environmental Permitting Regulations. Please also read our comments with respect to the option of disapplying this permitting regime and the need to discuss this with us early if you are considering it. If you are considering seeking disapplication of the flood risk permitting regime as part of your DCO, please contact us early to discuss this. We are likely to request the use of protective provisions if we do agree to disapply; or we may ask for legal agreements around specific aspects.</p>	<p>Protective provisions have been included in the <b>Draft DCO (Volume 3, application ref: 3.1)</b> and shared with the Environment Agency for agreement with the disapplication of the permitting regime.</p>
<p>Flood Risk – With respect to the FRA, we note that it takes into account East Riding Yorkshire Council’s SFRA &amp; Mapping, and that the Substations and TJB’s are located in flood zone 1.</p> <p>The flood zones in this area are based on generalised modelling, and therefore you are likely to want to revisit this to ensure it meets your requirements and gives confidence to any conclusions. We also recommend speaking to the LLFA about any other evidence they hold, along with other developers.</p>	<p>As part of the FRA (see <b>Volume 7, Appendix 20-4 (application ref: 7.20.20.4)</b>) Product 4, 5, 6 and 8 data request was submitted to the Environment Agency, via email, on 19th October 2023 and a response provided on 28th November 2023. The information provided as part of this data request has been considered within the FRA.</p> <p>Flood risk from all sources, identified by the NPPF, is considered in the FRA as well as all data from relevant stakeholders.</p>

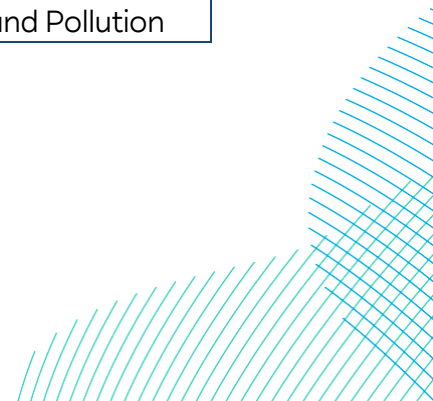


Comment	Project Response
<p>Flood Risk - Care must also be taken to avoid reducing flood storage or affecting flood conveyance routing. Land raising in areas of flood zone 3 will not be permitted where this would reduce flood storage or conveyance as this could increase flood risk elsewhere. If modifying ground levels in areas of flood zone 3 is required then you will be required to demonstrate that this will not have an adverse impact on storage and conveyance, through use of flood routing and compensatory storage. This should also consider the impact of climate change (noting that the existing flood map does not include any allowances for climate change).</p>	<p>Flood risk from all sources and taking into account climate change impacts and risks associated with flood storage and conveyance is fully addressed in the FRA (<b>Volume 7, Appendix 20-4 Flood Risk Assessment (application ref: 7.20.20.4)</b>).</p> <p>Construction works in Flood Zone 3 are limited to the excavation and installation of the onshore export cables, trenched and trenchless crossings, temporary construction compounds and the temporary haul road. During the construction phase the Projects will include measures, outlined in the <b>OCoCP (Volume 8, application ref: 8.9)</b> and to be secured as part of the DCO, to ensure there is no impact on flood risk.</p> <p>Once the Projects are constructed there will be no above ground infrastructure in Flood Zone 3 and the land will be reinstated to ensure there is no flood risk impact.</p>
<p>Flood Risk - We also note that for the cable route that ground levels will be reinstated to existing levels so that long term there is no change to flood storage or flow routes (para 148). Paragraph 308 states that entry exit points for trenchless techniques will be a minimum of 9m from the banks of any watercourse. This will also need to take into</p>	<p>Entry and exit points will take into account any defences and maintain a minimum set back of 9m.</p> <p>In the worst case soil storage may need to be up to six years in a sequential construction scenario for the two Projects.</p>

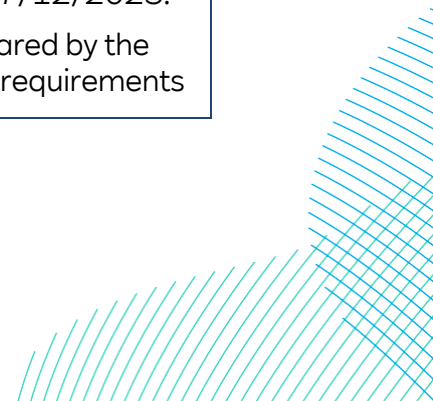




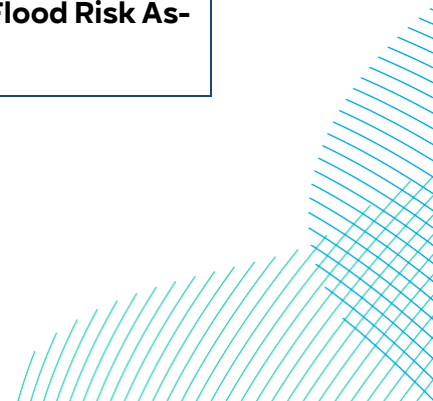
Comment	Project Response
account the presence of any defences - i.e., will need to be a minimum of 9m from the landward toe of any defences.	
Flood Risk - Paragraph 310 we concur that the final depths of the watercourse crossings will need to be informed by detailed Site investigation. This is especially important where any defences are present, and we would recommend early engagement with respect to these works.	The crossing methodology (which is described in the <b>OCoCP (Volume 8, application ref: 8.9)</b> for water crossings and flood defences will be agreed prior to construction at the detailed design stage with the Environment Agency.
Flood Risk - Paragraph 314 states that following construction any temporary access roads, and compounds will be reinstated. You should still ensure that any temporary roads / compounds conform to existing levels, or do not displace flood flows onto others or divert existing flow routes (as stated above).	Where temporary access roads and compounds are required during construction, existing ground levels will be used so as not to alter surface water flow paths. Following construction, the ground surface will also be reinstated to its pre-development status. This is set within the <b>OCoCP (Volume 8, application ref: 8.9)</b> included as part of the DCO application., to be secured.
Flood Risk - We would recommend that any flood warning and evacuation plan is agreed with the Emergency Planners at East Riding of Yorkshire Council.	A flood warning and evacuation plan (FWEP) will be agreed with the Emergency Planning Officer(s) at East of Riding of Yorkshire Council prior to construction. This is referenced in the FRA (see <b>Volume 7, Appendix 20-4 Flood Risk Assessment (application ref: 7.20.20.4)</b> ) and the requirements related to the Emergency Response, Evacuation and Pollution



Comment	Project Response
	Control Plan which will be developed post-consent as part of the detailed CoCP.
<p>Drainage It is noted that drainage details have not been finalised yet. We are pleased that drainage solutions will be developed and agreed with the appropriate regulators, and that reference has been made for the need to apply for permits from The Environment Agency for discharge and dewatering/abstraction activities. Please note; where infiltration SuDS are proposed for anything other than clean roof drainage in a SPZ1, a hydrogeological risk assessment should be undertaken, to ensure that the system does not pose an unacceptable risk to the source of supply.</p>	<p>The <b>Outline Drainage Strategy (Volume 8, application ref: 8.12)</b> will form the basis for the detailed surface water drainage scheme, which would be submitted to East Riding of Yorkshire Council, as the LLFA for approval prior to the commencement of construction of the Projects. This will include a temporary construction drainage scheme which will also be developed prior to construction, in consultation with landowners, the LLFA (East Riding of Yorkshire Council), the Environment Agency and relevant Internal Drainage Board(s), where appropriate.</p> <p>A hydrogeological risk assessment for SuDS has been incorporated into the WER assessment, as detailed in the <b>OCoCP (Volume 8, application ref: 8.9)</b>.</p>
<p><b>Section 42 Consultation - Beverly and North Holderness Internal Drainage Board July 2023</b></p>	
<p>The Board wishes to state that, where possible, the risk of flooding should be reduced and that, as far as is practicable, surface water arising from a developed site should be managed in a sustainable manner to mimic the surface water flows arising from the site prior to the proposed development. This should be considered whether</p>	<p>An <b>Outline Drainage Strategy (Volume 8, application ref: 8.12)</b> is included in the application and was shared with the IDB for review, with no comments received on 07/12/2023.</p> <p>A Surface Water Management Plan will be prepared by the Contractor prior to construction setting out the requirements</p>

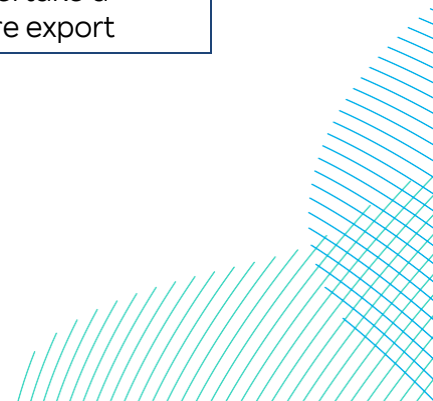


Comment	Project Response
<p>the surface water discharge arrangements from the site are to connect to a public or private sewer before outfalling into a watercourse or to outfall directly into a watercourse.</p>	<p>for temporary drainage during construction, as stated in the <b>OCoCP (Volume 8, application ref: 8.9)</b>, which is secured as a requirement by the DCO.</p>
<p>The applicant should be advised that the Board's prior consent is required for any development including fences or planting within 9.00m of the bank top of any watercourse (excluding Main River watercourses) within or forming the boundary of the site. Any proposal to culvert, bridge, fill in or make a discharge to the watercourse (excluding Main River watercourses) will also require the Board's prior consent.</p>	<p>Protective provisions have been included in the <b>Draft DCO (Volume 3, application ref: 3.1)</b> and shared with the IDB for agreement with the disapplication of the permitting regime. Should they not be agreed, a separate permit application would be made for IDB crossings.</p>
<p>Any approved development should not adversely affect the surface water drainage of the area and amenity of adjacent properties. No development should be allowed until the Authority is satisfied that surface water drainage has been adequately provided for. The applicant does not state at this stage how surface water is to be managed.</p>	<p>An <b>Outline Drainage Strategy (Volume 8, application ref: 8.12)</b> including proposed measures for pre and post construction field drainage and drainage including SuDS at the onshore converter station(s) was issued for review ahead of the ETG (07/12/23). One comment was received regarding the runoff rate from the Onshore Converter Stations.</p>
<p>The Board notes however that this is a Statutory Consultation for a Major Offshore/Onshore Wind Farm Development, Cable Route, Battery Storage and Associated Infrastructure. It is considered that this may enlarge the existing impermeable area on site and has the potential to</p>	<p>Flood risk from all sources, including drainage aspects of the Projects e.g. at the onshore converter station considered within the FRA (see <b>Volume 7, Appendix 20-4 Flood Risk Assessment (application ref: 7.20.20.4)</b>).</p>



Comment	Project Response
<p>increase the rate of surface water run-off from the site if this is not effectively constrained.</p>	
<p>The Board has no objection to the principal of this development but suggests that any approval granted to the proposed development should include the following Conditions:</p>	<p>Suitable requirements for drainage are included in the <b>Draft DCO (Volume 3, application ref: 3.1)</b> considering these points raised, as set out below.</p>
<p>Drainage works to be agreed - No development approved by this permission shall be commenced until the Local Planning Authority in consultation with the Internal Drainage Board has approved a Scheme for the provision of surface water drainage works. Any such Scheme shall be implemented to the reasonable satisfaction of the Local Planning Authority before the development is brought into use. The following criteria should be considered:</p> <ul style="list-style-type: none"> <li>Any proposal to discharge surface water to a watercourse from the redevelopment of a brownfield site should first establish the extent of any existing discharge to that watercourse.</li> </ul>	<p>An <b>Outline Drainage Strategy (Volume 8, application ref: 8.12)</b> including proposed measures for pre and post construction field drainage and drainage including SuDS at the onshore converter station(s) has been issued for review ahead of the ETG 07/12/23). One comment was received regarding the runoff rate from the Onshore Converter Stations.</p> <p>The detailed drainage design for elements of the Projects that are within the Internal Drainage District (IDD), i.e. the onshore export cable corridor, will be undertaken post-DCO and will take into account the criteria identified by the IDB, where relevant at this time.</p> <p>The principles set out in the <b>Outline Drainage Strategy (Volume 8, application ref: 8.12)</b> will form the basis for the detailed drainage scheme for the onshore convertor station(s) as well as informing the pre and post construction</p>

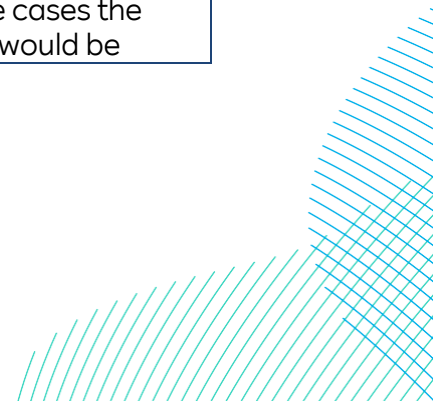
Comment	Project Response
<ul style="list-style-type: none"> <li>• Peak run-off from a brownfield site should be attenuated to 70% of any existing discharge rate (existing rate taken as 140lit/sec/ha or the established rate whichever is the lesser for the connected impermeable area).</li> <li>• Discharge from “greenfield sites” taken as 1.4 lit/sec/ha (1:1yr storm).</li> <li>• Storage volume should accommodate a 1:30yr event with no surface flooding and no overland discharge off the site in a 1:100yr event.</li> <li>• A 30% allowance for climate change should be included in all calculations.</li> <li>• A range of durations should be used to establish the worst-case scenario.</li> <li>• The suitability of soakaways, as a means of surface water disposal, should be ascertained in accordance with BRE Digest 365 or other approved methodology</li> </ul>	<p>land drainage, which would be submitted to East Riding of Yorkshire Council, as the LLFA, and the IDB prior to the commencement of construction of the Projects.</p> <p>A Surface Water Management Plan will be prepared by the Contractor prior to construction setting out the requirements for temporary drainage during construction, as stated in the <b>OCoCP (Volume 8, application ref: 8.9)</b>, to be secured as a requirement within the DCO.</p> <p>All riparian owners will be identified and consulted prior to commencement of construction. A summary of the surface water drainage provisions are provided in the <b>Outline Drainage Strategy (Volume 8, application ref: 8.12)</b>.</p> <p>Construction works in the IDB catchment are limited to the excavation and installation of the onshore export cables, trenched and trenchless crossings, temporary construction compounds and the temporary haul road. During the construction phase the Projects will include measures, outlined in the <b>OCoCP (Volume 8, application ref: 8.9)</b> and to be secured as part of the DCO, to ensure there is no impact on flood risk. The measures identified in the <b>OCoCP (Volume 8, application ref: 8.9)</b> include the need to undertake a survey of all drainage features along the onshore export</p>



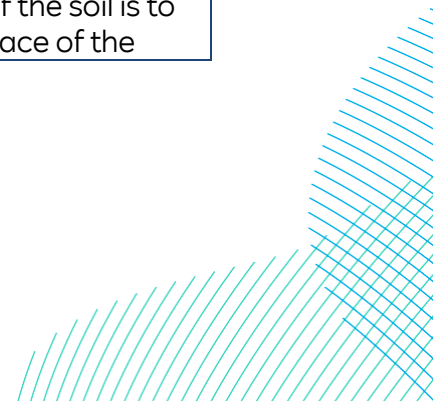
Comment	Project Response
<p>Drainage routes - All drainage routes through the Site shall be maintained both during the works on Site and after completion of the works. Provisions shall be made to ensure that upstream and downstream riparian owners and those areas that are presently served by any drainage routes passing through or adjacent to the Site are not adversely affected by the development. Drainage routes shall include all methods by which water may be transferred through the Site and shall include such systems as “ridge and furrow” and “overland flows”. The effect of raising Site levels on adjacent property must be carefully considered and appropriate measures taken to negate influences.</p>	<p>cable corridor to identify appropriate site-specific measures for each of these.</p> <p>Once the Projects are constructed there will be no above ground infrastructure within the IDB catchment. The land, as well as the drainage, will be reinstated to ensure there is no flood risk impact.</p>
<p>Restrict rate of discharge - No development approved by this permission shall be commenced until a Scheme for the provision, implementation and maintenance of a surface water regulation system has been approved by and implemented to the reasonable satisfaction of the Local Planning Authority in consultation with the Internal Drainage Board. The rate of discharge would not be expected to exceed that of a "greenfield site" taken as 1.4 lit/sec/ha.</p>	<p>The strategy for controlling surface water runoff is detailed in the <b>Outline Drainage Strategy (Volume 8, application ref: 8.12)</b>. The report gives details of the outline drainage strategy for the onshore converter station(s) and the pre and post construction land drainage, located within the Onshore Development Area. This strategy will form the basis of the detailed drainage scheme that will be submitted to the relevant planning authority (ERYC), to be approved following consultation with the LLFA and the Environment Agency.</p>



Comment	Project Response
	<p>In addition to the pre and post construction land drainage scheme described above, a Surface Water Management Plan (SWMP), setting out the requirements for temporary surface water drainage during construction would also be prepared by the contractor, should any temporary dewatering be required.</p>
<p>Nine metre maintenance strip - A strip of land nine metres wide adjacent to the top of both banks of all watercourses on Site shall be kept clear of all new buildings and structures (including gates, walls, fences and trees) unless agreed otherwise in writing with the Local Planning Authority in consultation with the Board. Ground levels must not be raised within this area. Access arrangements should be agreed with the Internal Drainage Board.</p>	<p>As detailed in the <b>OCoCP (Volume 8, application ref: 8.9)</b> a 9m wide strip will be maintained during the construction phase to ensure the ongoing maintenance of IDB drains and this has been included in the design. Some IDB drains would be subject to open cut during construction, in these cases the crossing design and construction methodology would be agreed with the IDB and relevant authority prior to construction.</p>
<p>Six metre clear of culvert - No development, including building, filling, tree planting, or any other permanent obstruction, shall be located over or within 6 metres measured from either outside edge of the pipe forming a culverted watercourse.</p>	<p>As detailed in the <b>OCoCP (Volume 8, application ref: 8.9)</b>, a 6m wide strip from the outside edge of any pipe which is forming a culverted IDB watercourse will be maintained during both construction and once it is located in situ to enable access and to prevent damage. This consideration has been included in the design. Some IDB drains would be subject to open cut during construction, in these cases the crossing design and construction methodology would be</p>

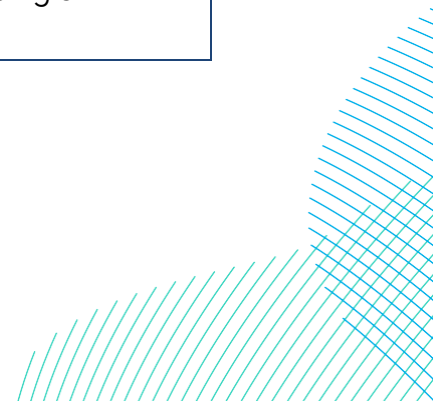


Comment	Project Response
	agreed with the IDB and relevant authority prior to construction.
Four metre access strip - A permanent 4 metre wide undeveloped strip shall be made available across the Site. Access arrangements should be agreed with the Internal Drainage Board.	As detailed in the <b>OCoCP (Volume 8, application ref: 8.9)</b> , a permanent access routes will be designed into the Projects, including a minimum 4m wide access strip, where relevant.
<p>No storage of materials - There shall be no storage of any materials including soil adjacent to the bank top of the watercourse.</p> <p>REASON: To ensure that there will be no risk of the watercourse becoming blocked by debris from the stockpiles or bank slipping due to increased loading of the bank top.</p>	<p>Stockpiles and storage of materials will be sited away from the bank top of any watercourses to ensure there is no impact on the nearby watercourses.</p> <p>In addition, as noted above, where soil storage in Flood Zones 2 and 3 is unavoidable, spoil storage areas will be located such that they don't block or divert existing surface water flow paths.</p> <p>Additionally, topsoil and subsoil will be stored in separate stockpiles in line with DEFRA Construction Code of Practice for the Sustainable Use of Soils on Construction Sites PB13298, or the latest relevant available guidance. Once the stockpile has been completed the area should be cordoned off with secure fencing to prevent any disturbance or contamination by other construction activities. If the soil is to be stockpiled for more than six months, the surface of the</p>

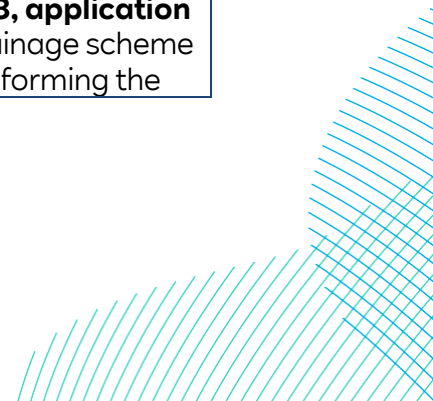




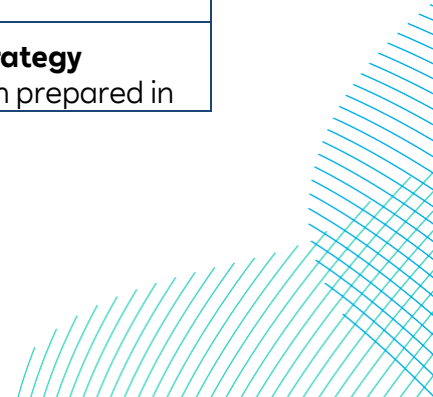
Comment	Project Response
	<p>stockpiles should be seeded with a grass/clover mix to minimise soil erosion.</p> <p>These measures are outlined in the <b>OCoCP (Volume 8, application ref: 8.9)</b>, which has been secured as a requirement of the DCO, to ensure there is no impact on flood risk.</p>
<p>Flood risk assessment - In accordance with PPS 25 it is considered appropriate that a more detailed Flood Risk Assessment should be carried out for this proposed development.</p>	<p>The ES is supported by an FRA (see <b>Volume 7, Appendix 20-4 (application ref: 7.20.20.4)</b>) that has been undertaken in accordance with current policy and guidance including National Policy Statements, NPPF and its supporting Planning Practice Guidance. It will be proportionate in scale and detail to the nature of the Projects and summarises flood risk both to and from it, based on the sources of flood risk outlined in NPPF.</p>
<p>Drainage risk assessment - In accordance with PPS 25 it is considered appropriate that a Drainage Risk Assessment should be carried out for this proposed development.</p>	<p>The ES is supported by an <b>Outline Drainage Strategy (Volume 8, application ref: 8.12)</b> that has been prepared in accordance with current policy and guidance including National Policy Statements, NPPF and its supporting Planning Practice Guidance as well as local requirements with regard to surface water drainage, as set out by East Riding of Yorkshire Council, in their role as the LLFA.</p>



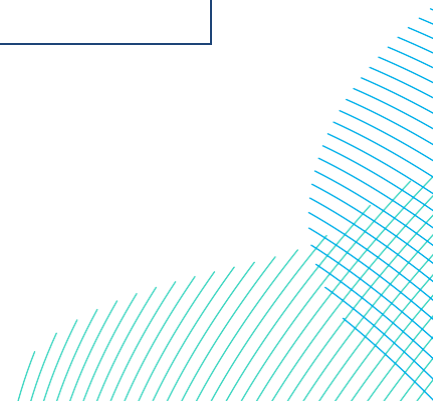
Comment	Project Response
<p>Location of structures - The proposed structure is adjacent to a Board maintained watercourse and, as such, requires the formal Consent under the Land Drainage Act from the Internal Drainage Board.</p>	<p>Protective provisions have been included in the <b>Draft DCO (Volume 3, application ref: 3.1)</b> and shared with the IDB for agreement with the disapplication of the permitting regime. Should they not be agreed, a separate permit application would be made for IDB crossings.</p>
<p>PPS25 premise - The Board wishes to highlight the premise within PPS 25 that developers, where possible, reduce flood risk overall (paragraph 22) and that, as far as is practicable, surface water arising from a developed site should be managed in a sustainable manner to mimic the surface water flows arising from the site prior to the proposed development (paragraph F6). This should be considered whether the surface water discharge arrangements from the site are to connect to a public or private sewer before outfalling into a watercourse or to outfall directly into a watercourse.</p>	<p>PPS25 was superseded by NPPF in 2012. As such the ES is supported by both a FRA and Outline Drainage Strategy that has been undertaken in accordance with current policy and guidance including NPPF and its supporting Planning Practice Guidance, the CIRIA SuDS Manual (C753) as well as local requirements with regard to surface water drainage, as set out by East Riding of Yorkshire Council, in their role as the LLFA.</p> <p>The ES is supported by an <b>Outline Drainage Strategy (Volume 8, application ref: 8.12)</b> that has been prepared in accordance with current policy and guidance including National Policy Statements, NPPF and its supporting Planning Practice Guidance as well as local requirements with regard to surface water drainage, as set out by East Riding of Yorkshire Council, in their role as the LLFA. The principles set out in the <b>Outline Drainage Strategy (Volume 8, application ref: 8.12)</b> will form the basis for the detailed drainage scheme for the onshore convertor station(s) as well as informing the</p>



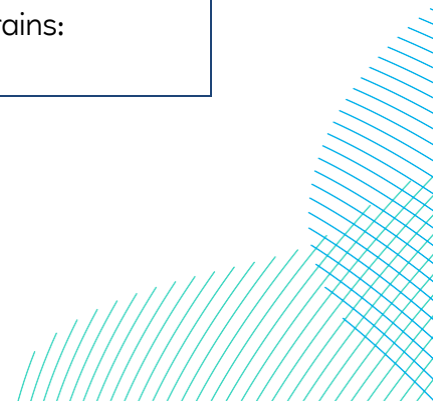
Comment	Project Response
	<p>pre and post construction land drainage, which would be submitted to East Riding of Yorkshire Council, as the LLFA, and the IDB prior to the commencement of construction of the Projects.</p> <p>A Surface Water Management Plan will be prepared by the Contractor prior to construction setting out the requirements for temporary drainage during construction, as stated in the <b>OCoCP (Volume 8, application ref: 8.9)</b>, secured as a requirement within the DCO.</p>
<p>The Board would however also like to take the opportunity to inform the applicant that the prior written consent of the Board (outside of the planning process) will be required for any proposed works or structures in, under, over or within 9 metres of the top of the bank of any Board maintained watercourse, or any ordinary watercourse, (excluding Main River watercourses), in the Board's district. Any proposals to culvert, bridge, fill in or make a discharge to any watercourse (excluding Main River watercourses), will also require the Board's prior written consent approval. Please also note that any consent application can take several months to be considered by the Board.</p>	<p>Protective provisions have been included in the <b>Draft DCO (Volume 3, application ref: 3.1)</b> and shared with the IDB for agreement with the disapplication of the permitting regime. Should they not be agreed, a separate permit application would be made for IDB crossings.</p>
<p>The Board is also very anxious that any existing land drainage systems disturbed during the course of the works,</p>	<p>The ES is supported by an <b>Outline Drainage Strategy (Volume 8, application ref: 8.12)</b> that has been prepared in</p>



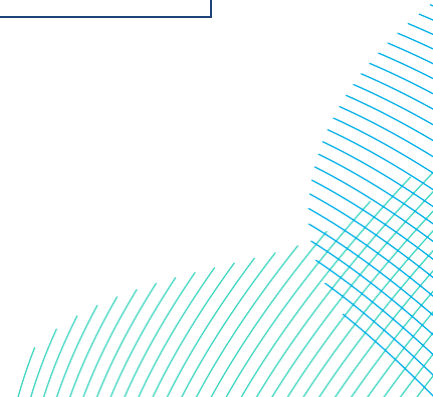
Comment	Project Response
<p>particularly during installation of the new cabling, are reinstated following consultation with the Board to reduce the risk of future flooding.</p>	<p>accordance with current policy and guidance including National Policy Statements, NPPF and its supporting Planning Practice Guidance as well as local requirements with regard to surface water drainage, as set out by East Riding of Yorkshire Council, in their role as the LLFA. The principles set out in the <b>Outline Drainage Strategy (Volume 8, application ref: 8.12)</b> will form the basis for the detailed drainage scheme for the onshore convertor station(s) as well as informing the pre and post construction land drainage, which would be submitted to East Riding of Yorkshire Council, as the LLFA, and the IDB prior to the commencement of construction of the Projects.</p> <p>A Surface Water Management Plan will be prepared by the Contractor prior to construction setting out the requirements for temporary drainage during construction, as stated in the <b>OCoCP (Volume 8, application ref: 8.9)</b>, to be secured as a requirement within the DCO.</p> <p>All channels disturbed by trenching or the installation of temporary crossings will be made good and reinstated to their former condition. This is set out within the <b>OCoCP (Volume 8, application ref: 8.9)</b> and will be secured as a requirement in the DCO.</p>



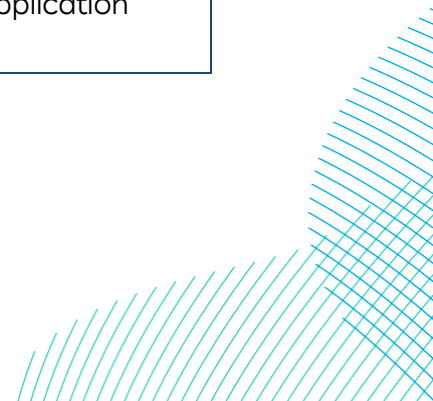
Comment	Project Response
<p>The Board would also strongly recommend that all watercourse cable crossings following consultation with the Board are installed by HDD drilling to reduce the risk of potential damage to the watercourse and to avoid disruption to the flow of the watercourse during construction.</p>	<p>Crossing methods will be agreed with the relevant authority at the detailed design stage, to include the Environment Agency, Internal Drainage Board (IDB) and East Riding of Yorkshire Council (as the LLFA).</p> <p>The proposed crossing method is included in the <b>Obstacle Crossing Register (OCR) (Volume 7, Appendix 5-2 (application ref: 7.5.5.2))</b>. All Environment Agency Main Rivers will be crossed by trenchless crossing, whilst smaller drains and watercourses (i.e. Ordinary Watercourses) have been proposed to utilise an open cut crossing methodology.</p> <p>The following IDB drains will be crossed by open cut (trenching):</p> <ul style="list-style-type: none"> <li>• Dunnington Sewer;</li> <li>• Arnold and Riston Drain (note there is a preference for HDD at this location but all options are retained); and</li> <li>• South Bullock (N. Branch - Diggins Arms).</li> </ul> <p>There are two trenchless crossings of IDB drains:</p> <ul style="list-style-type: none"> <li>• Turf Gutter &amp; Eske River Side Drain; and</li> <li>• Skipsea Drain (West Branch).</li> </ul> <p>There are two haul road only crossings of IDB drains:</p> <ul style="list-style-type: none"> <li>• Storkhill Drain; and</li> </ul>



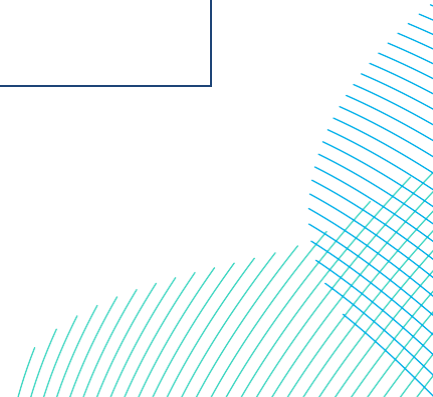
Comment	Project Response
	<ul style="list-style-type: none"> <li>• South Bullock (S. Branch - Chalk Arm).</li> </ul> <p>There a further 15 crossings (trenched and HDD) within the IDB catchment. These are drains managed by riparian owners, not the IDB.</p>
<b>ETG 07/12/23</b>	
<p>Representative from Beverley and North Holderness IDB questioned the total of 27 crossings in the IDB catchment area.</p>	<p>All crossings reviewed and a list of watercourse crossings and crossing type have been sent to the IDB. The updated crossings were also discussed at the ETG on 20<sup>th</sup> March 2024.</p>
<p>The Applicant to confirm with IDB the approach to be adopted regarding the disapplication process and use of Protective Provisions within the DCO.</p>	<p>Protective provisions have been included in the <b>Draft DCO (Volume 3, application ref: 3.1)</b> and shared with the IDB for agreement with the disapplication of the permitting regime. Should they not be agreed, a separate permit application would be made for IDB crossings.</p>
<p>Representative from Beverley and North Holderness IDB identified past problems with haul roads on wet floodplain soils.</p>	<p><b>Volume 7, Chapter 5 Project Description (application ref: 7.5)</b> sets out the haul road description, measures to ensure the design is appropriate for any areas of flooding will be considered at the detailed design stage.</p>



Comment	Project Response
<p>Representative from Beverley and North Holderness IDB questioned the greenfield runoff rates quoted of 18.7 l/s for the whole converter station area rather than per hectare.</p>	<p>The <b>Outline Drainage Strategy (Volume 8, application ref: 8.12)</b> was updated prior to DCO submission to clarify the runoff rate.</p>
<p><b>ETG 13/12/23</b></p>	
<p>Environment Agency – why would the site be decommissioned after only 30 years? Is there no option to extent or renew/replace the structure to extend the life span. Could a sensitivity test (longer than 75 years) be done to demonstrate it doesn't need to be mitigated for?</p>	<p>The Applicant confirmed the Projects have the option for a 60-year lease with the Crown Estate, and a 30 to 32-year design life, based on the average lifespan of the offshore wind turbines. After the initial c.30 to 32 years operational period agree in the DCO consent, if the Projects wanted to extend operation for a further 30 years we would have to apply for new consent and complete further environmental assessment. The Projects would also be required to prepare a Decommissioning Plan, prior to the commencement of any decommissioning works.</p>
<p>Discussion about the possibility of setting up a meeting regarding flood risk activity permitting</p>	<p>Protective provisions have been included in the <b>Draft DCO (Volume 3, application ref: 3.1)</b> and shared with the IDB for agreement with the disapplication of the permitting regime. Should they not be agreed, a separate permit application would be made for IDB crossings.</p>

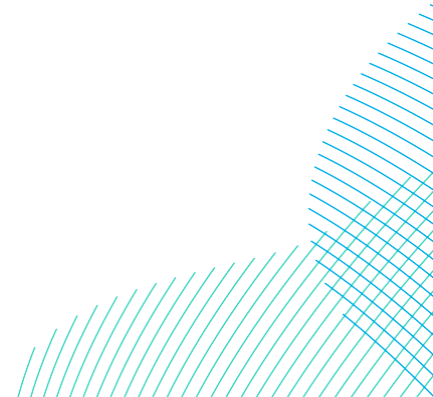


Comment	Project Response
<b>ETG 20/03/24</b>	
<p>Arnold and Riston Drain is pump-fed so if the open cut approach is taken there are concerns there would be an overwhelm of water. Large pumps likely needed to mitigate that effect.</p>	<p>The preference for the Arnold and Riston Drain is trenchless crossing but the open cut option is retained and assessed within the ES as the worst-case scenario.</p>
<p>The list of IDB watercourse crossings still appears to be short.</p>	<p>The IDB were assured that the crossings listed are accurate, based on the information we have. Following review, if there are any that have been missed, we would welcome further information.</p>
<p>The mitigation text should make it clear that the haul road in Flood Zones 2 and 3 needs to be free draining and should not hold up existing flows across the site.</p>	<p>Specific mitigation for works located in Flood Zone 2 and 3 have been included in the <b>OCoCP (Volume 8, application ref: 8.9)</b>.</p>
<p>Consideration of ground conditions is the primary consideration for watercourse reinstatement. Consideration should be given to the time of year the works are taking place, soil moisture levels, and predictions of rainfall events. Additionally, using the correct pumps and adequate over pumping, as well as siltation measures are important, as well as not leaving anything open over periods of non-working, such as a weekend.</p>	<p>Specific mitigation has been added to the <b>OCoCP (Volume 8, application ref: 8.9)</b> to avoid reinstatement during periods of wet weather and reviewing weather forecasts and any flood alerts to ensure works are not undertaken during flood events. Additional text has also been added on the size of pump to be used and ensure adequate measures are in place to limit any silt build up.</p>





Comment	Project Response
Concern over enforcement measures if disapplication process is used.	Protective provisions have been included in the <b>Draft DCO (Volume 3, application ref: 3.1)</b> and shared with the IDB for agreement with the disapplication of the permitting regime. Clarification was provided following the ETG on how the protective provisions would allow enforcement.
The IDB raised concerns about the Land Drainage Consent fees they collect for each application and the potential loss of this income stream.	Additional wording added to the draft protective provisions to allow for payment to be made.



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Bank South (West) Limited**

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