

## 7 Appendix III – Meeting Minutes and Documents

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### 7.1 Minutes

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## MEETING AGENDA

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<b>MEETING ORGANISER:</b>	VATTENFALL WIND POWER LTD
<b>ATTENDEES:</b>	HELEN JAMESON (VATTENFALL) HJ GORAN LOMAN (VATTENFALL) GL (TELECON) JULIE DREW-MURPHY (RCG) JDM TOM CARPEN (PINS) TC RICHARD KENT (PINS) RK HARRI MORRALL (NATURAL ENGLAND) HM PAUL KIRK (MMO) PK CAROLYN MCKENZIE (KENT COUNTY COUNCIL) CM CHRIS PATER (HISTORIC ENGLAND) CP
<b>APPOLOGIES:</b>	SARAH PARKER (THANET DISTRICT COUNCIL) SP KJ JOHANSSON (PINS) KJJ
<b>PURPOSE OF MEETING:</b>	EVIDENCE PLAN STEERING GROUP KICK OFF MEETING TO DISCUSS THE TERMS OF REFERENCE AND THE EVIDENCE PLAN PROCESS
<b>DATE &amp; TIME &amp; LOCATION:</b>	FRIDAY 21 <sup>ST</sup> OCTOBER 2016 1030-1430. VATTENFALL UK, 1 TUDOR STREET, LONDON. EC4 Y0AH. LILLGRUND MEETING ROOM. LUNCH WILL BE PROVIDED

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Agenda item	Topic for discussion	
1	Welcome and Introduction	
2	Overview of the process – purpose and aims	
3	Evidence plan Terms of Reference (ToR) document discussion <ul style="list-style-type: none"> <li>• Document structure</li> <li>• Roles and responsibilities</li> <li>• Logistics plan – number and timings of meetings</li> <li>• Consultation log</li> </ul>	
4	The process going forward	
5	AOB	
Notes & Actions	Notes	Action
1	TC provided chair role for the meeting. Round table introductions were made	
	HJ provided an update on the project including an update on the following key points <ul style="list-style-type: none"> <li>• No Agreement For Lease (AFL) in place but discussions are ongoing;</li> </ul>	

	<ul style="list-style-type: none"> <li>• Site characterisation surveys offshore have all commended or are about to commence;</li> <li>• Onshore surveys to commence early 2017;</li> <li>• Currently preparing for scoping, due to go out mid-December following an internal governance decision;</li> <li>• Grid connection offer due before end October;</li> <li>• Will have more certainty during November; and</li> <li>• High level programme dates             <ul style="list-style-type: none"> <li>• PEI July 2017</li> <li>• Submission Jan 2018.</li> </ul> </li> </ul>	
	<p>HJ provided a high level overview of the design aspects of the development as follows</p> <ul style="list-style-type: none"> <li>• Extension encompasses original site;</li> <li>• 34 x 8MW WTG as base case;</li> <li>• Monopiles preferred but included jackets with pin piles or suction caissons; and</li> <li>• 66kV inter array and export cables (excludes from OFTO) but inclusion of 132 kV and substation as option.</li> </ul> <p>CP queried why 66kV would exclude from OFTO regime and how this impacts the structure of the DCO</p> <p>HJ clarified that the current OFTO regime only covers voltages of 132kV or greater. There will be one consent for the Development in its entirety which will be wholly owned by Vattenfall. It is likely that the DCO will be split between the transmission and generation assets in case they have to divest part of the project in the future.</p> <p>RK asked whether HVDC or HVAC was being considered</p> <p>HJ clarified that only HVAC would be consented, that there was no need for HVDC due the short cable route distances involved.</p> <p>HJ provided the following as being anticipated to be the key sensitivities for the Project</p> <ul style="list-style-type: none"> <li>• Landscape and visual due to the proximity to the coast;</li> <li>• Shipping;</li> <li>• Coastal designations – speak to NE and MMO;</li> <li>• Fishing – had close contact with the fishing community since start of the year and working with them to develop survey techniques and assessment for collection of additional data to ensure they have confidence in the assessment; and</li> <li>• Archaeology – plentiful shipwrecks</li> </ul> <p>CP agreed that the area was interesting from an archaeological perspective with the area known to contain 1000’s of shipwrecks from over the years and the older the wreck the more invisible to modern survey techniques they may be. CP is keen for impacts to Coastal and Terrestrial setting to be included within the assessments.</p> <p>HJ provided an overview of the 2 cable route options currently being considered; the northern route to Pegwell Bay and the southern route into Sandwich Bay. Options have been maintained for scoping and a decision will be made following feedback from scoping prior to PEI.</p>	

	<p>Onshore sensitivities with some of the local communities, more space will be required for 66kV as there are more cables. The space required for the substation would be similar for either 66kV or 132kV.</p> <p>TC asked for comments from around the table on any perceived key issues.</p> <p>RC enquired how much could be learned from work already carried out for the original wind farm and the cable route in particular, with respect to Archaeology?</p> <p>CP stated that if the same cable route was used then the Thanet offshore wind farm data would be relevant for characterisation but any new areas would need survey data. CP also noted that the seabed is dynamic and therefore things may be apparent now that were not before.</p> <p>HJ confirmed that the whole of the area is being covered by the geophysical survey campaign and that an archaeologist had confirmed that the survey data would be suitable for archaeological assessment.</p> <p>RK questioned whether overseas fishermen had been considered?</p> <p>HJ stated that currently only consultation with Thanet fishermen had been undertaken but they were aware that Dutch fishermen do fish in the area.</p> <p>PK stated that the impacts would be the same regardless of who was carrying out the fishing.</p> <p>JDM agreed that this is true from an environmental perspective but from a commercial fisheries assessment point of view the impact to Dutch catches would need considering.</p> <p>RK stated that consideration should be given to the Regulation 24 process on considering transboundary impacts.</p>	
2	<p>TC stated that the EP process is a really useful process to follow and a very positive process, but there should not be an undue pressure to get to the point of agreement for everything as any areas not agreed will be carried forward into the examination.</p> <p>HJ outlined Vattenfall's desire to get as many issues ID'd as possible and get to the point of agreement if possible.</p> <p>JDM then provided an overview of the EP process including the purpose and the aims. It is essentially a collaborative process between Vattenfall and the stakeholders to establish robust data on which the HRA will be based. JDM highlighted that this EP process is seeking to agree the data and assessments for EIA also as much of the data required for HRA will be relevant to EIA.</p> <p>The consultation undertaken as part of this process will be used to agree SoCG and ultimately this process seeks to streamline the application leaving only those items still to be agreed as a focus for the examination.</p> <p>CM enquired as to whether there had been good involvement of LPAs for their other projects that had followed this process.</p> <p>TC responded that it varies and some LPAs prefer to liaise outside the EP process. Resourcing is the main issue affecting participation. Some difficulty has been that attendees are</p>	



	<p>responding at Officer level and other members of the Council may not take the same stance. CM acknowledged this and stated she would need to confer with colleagues in other departments.</p> <p>Dover District Council are interested in being involved with the process, as much of the southern cable route option falls within their jurisdiction, they are currently requesting that a PPA be put in place before they will engage.</p> <p>HJ stressed that the constraints of the Council were understood and if it's not possible to get all the required people together when required that separate meetings could be arranged.</p> <p>RK enquired if the intention would be for Dover District Council to drop out if the southern route was not progressed.</p> <p>This would really be for the Council to advise.</p> <p>JDM stated they would still be a neighbouring authority for the purposes of the examination so it would be at their discretion if they wanted to remain involved or not.</p> <p>The process should be totally transparent with sharing of minutes of ETG minutes prior to Steering Group meetings.</p>	
<p>3</p>	<p>JDM then ran through the document providing an overview of its structure and content. Including an overview of the different work streams and the Export Topic Groups (ETG).</p> <p>One of the key challenges for the process and this Evidence Plan (EP) ToR document are for it to remain as a working document.</p> <p>RK stated in light of potential future revisions to remove any sections scoped out, at what point are they removed and how would this be agreed?</p> <p>A discussion and consensus was then reached that once the ToR was agreed any amendments should be made as an addendum to the main document, thereby ensuring that an audit trail of revisions would be maintained.</p> <p>PINs will not normally attend the Expert Topic Group meetings but would appreciate an overview of what's been raised.</p> <p>ETG are designed to build on data and discussions previously held, they are not intended to start from scratch.</p> <p>JDM highlighted that ETGs will be run as workshops covering all topics within a day, and that topics have been grouped as its understood that there will be overlap in attendance for the different topics.</p> <p>JDM invited comments on the structure and content.</p> <p>HJ stated that there will be an early ornithology discussion before Christmas with NE and RSPB about how to best use the data previously collected and how to combine the boat based and aerial data.</p> <p>RK stated that there is an outstanding action on PINs to provide some broad advice on the principle of submission with an incomplete data set and the risk of non-acceptance or that the application would not pass the ES test.</p> <p>HJ stated that this advice was required, if there is a high risk of non-acceptance this will determine how the application proceeds.</p> <p>PINs largely define risk by how much consultees highlight something is an issue.</p>	<p>Once ToR finalised all amendments to be made in addendum to the main document</p> <p>Participants to provide comments</p> <p>PINs to provide advice on risk of non acceptance</p>

	<p>It was suggested that a set agenda be developed for the Steering Group meetings whereby each topic group is listed and an update provided on the key issues for each.</p> <p>JDM outlined that documentation to be covered within meetings will be circulated in advance of meetings to allow for review.</p> <p>PK highlighted that review times that MMO allow for Cefas feedback is 4 weeks which should be considered.</p> <p>HJ then provided an overview of the dates for scoping as being: board meeting on 5<sup>th</sup> followed by scoping submission on 12<sup>th</sup>.</p> <p>JDM provided an overview of the grouping of topics for the ETGs, HM stated that the groupings worked fine for them.</p> <p>PK stated that Cefas would attend the ETG workshops.</p>	
	<p>JDM gave an overview of the Roles and responsibilities as outlined in the document in Sections 1.3 and 2.2.4 and invited any feedback.</p> <p>NE suggested that the Environment Agency need to be included as NE would not provide advice on their behalf.</p> <p>It was requested that some text was added to distinguish between local and district councils and what remit each has. CM agreed to provide some text.</p> <p>Historic England role to be updated – CP to act as sole HE representative on the Steering Group with his onshore colleagues to be represented on the ETG.</p> <p>Comments will be invited from Dover District Council and Thanet District Council prior to these ToR being finalised.</p> <p>TC stated that they encourage joint working between LPAs where possible and this process should assist with SoCG and the Local Impact Reports.</p> <p>Freedom of Information Act issues were discussed, and that the high level summary note of the meeting will be published on the PINs website. Any information can be requested under FOI Act, so marking of documents as work in progress etc should be adhered to. Also applies to information held by the MMO.</p> <p>HJ stated that all the information will ultimately be available so it's not a big issue its just one of timing as things are still confidential at this current time.</p> <p>PINs have updated wording on FOI Act and will provide for inclusion in next draft of ToR.</p> <p>Deadline for Comments agreed between the Steering Group members present as 11<sup>th</sup> November 2016.</p> <p>A framework for future meetings will be agreed, JDM stated it is likely there will be a set agenda that is used as the basis for all meetings but with the flexibility to adapt as required.</p> <p>A discussion re scoping timescales then followed. PINs are obliged to provide a response within 42 days. Vattenfall acknowledged that this places some undue pressure on consultees to respond over the Christmas period and will look to revise the scoping schedule to submission in January.</p> <p>PINs suggested including the Rule 6 notification within the cover letter of the scoping report.</p>	<p>CM to provide some text for inclusion JDM to update HE role</p> <p>PINs to send new wording. JDM to update</p>

	<p>PINs raised a concern regarding the ETG meetings during scoping and causing confusion as to who should receive the comments. Need to ensure that it is clear that scoping is the SoS consultation and all responses should therefore go to them and not the Applicant and the differences between this and the S42 consultation.</p> <p>HJ highlighted that in addition to this process Vattenfall will be holding community specific meetings that would include the local parish council and parties not involved with the EP Process HJ enquired if they sent the shapefile to PINs could they advise who they should consult under Reg 9. Vattenfall suggested they need clarity who will be prescribed consultees as there are some sensitivities with some organisations and they just need to be clear what their status is likely to be before they engage with them.</p> <p>PINs suggested they don't normally issue this but will discuss internally and respond.</p> <p>JDM talked through the Logistics Plan and Consultation log outlining the aims and purpose of each.</p> <p>The Logistics Plan sets out the timetable for meetings throughout the process, timed to coincide with key milestones in the project, given the project programme time between meetings is relatively short anyway so didn't see the need for additional meetings. Adhoc topic specific meetings may be arranged as required giving the required notice.</p> <p>It was agreed that Steering Group meetings will take place following ETG meetings so an update can be provided.</p> <p>Need to clarify how decisions made at the Steering Group will be fed back to the ETG.</p> <p>It was noted that the document needs to clearly identify the nearshore and intertidal area and make it clear which workstream they are included within.</p> <p>JDM highlighted that a separate consultation log will be produced for each stakeholder participating in the EP Process. The log is designed to track areas of agreement and outstanding queries to be resolved for each topic area that the stakeholder has an interest in.</p> <p>HM agreed that this will be helpful in producing the Statement of Common Ground (SOCG).</p> <p>It was suggested that an additional column could be added to indicate whether more than one stakeholder has agreed to the points being documented.</p>	<p>PINs to advise if they can provide the Reg 9 list of consultees</p> <p>JDM to update documents</p>
<p>4</p>	<p>JDM stated that the next step is to agree the ToR document, allowing time for Thanet District Council and Dover District Council to review and have an input to the document, aim to have an agreed ToR before Christmas 2016.</p> <p>A separate ornithology meeting will be held in November/December but the ToR does not need to be final for this meeting.</p> <p>It was agreed that the meeting minutes the high level note from PINs and dates for the ETG meetings are to be sent out by 11<sup>th</sup> November.</p>	<p>Note, meeting mins &amp; ETG meeting dates to be circulated.</p>

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**OFFSHORE ECOLOGY MEETING MINUTES**

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**MEETING ORGANISER:** VATTENFALL WIND POWER LTD

**ATTENDEES:** HELEN JAMESON (VATTENFALL)  
 JO CLEMENTS (VATTENFALL)  
 SEAN LEAKE (GOBE CONSULTANTS)  
 SAMMY MULLAN (GOBE CONSULTANTS)  
 HARRI MORRALL (NATURAL ENGLAND)  
 CHRIS PATER (HISTORIC ENGLAND)  
 HELEN JOHNSON (THANET COUNTY COUNCIL) (DIALLED IN)  
 MARGARET TIERNEY (MMO) (DIALLED IN)  
 LINDSEY BOOTH-HUGGINS (MMO) (DIALLED IN)  
 RICHARD KENT (PINS) (DIALLED IN)  
 JENNIFER WILSON (EA) (DIALED IN)  
 REBECCA WINCOTT (NATURAL ENGLAND) (DIALLED IN)

**APOLOGIES** GÖRAN LOMAN (VATTENFALL)  
 HELEN FORESTER (KENT COUNTY COUNCIL)  
 IAIN LIVINGSTONE (THANET COUNTY COUNCIL)  
 FIONA RUNACRE (DOVER DISTRICT COUNCIL)  
 APRIL NEWING (KENT COUNTY COUNCIL)  
 PAUL KIRK (MMO)

**PURPOSE OF MEETING:** STEERING GROUP MEETING TO DISCUSS GENERAL PROJECT AND EVIDENCE PLAN PROGRESS

**DATE & TIME & LOCATION:** MONDAY 26<sup>TH</sup> JUNE. 1100-1330  
 VATTENFALL UK, 1 TUDOR STREET, LONDON. EC4 Y0AH. LILLGRUND MEETING ROOM.

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Agenda item	Topic for discussion
1	Project Update
2	Evidence Plan Terms of Reference (ToR)
3	Non- Evidence Plan areas of discussion
4	Technical Expert Panel logs
5	Key Areas of Agreement and Disagreement
6	Next Steps
7	AOB

Notes & Actions	Notes	Action
1	<p><b>Project Update</b></p> <p>The PowerPoint presentation was provided as a pdf to all attendees during the meeting.</p> <p>SL provided a summary of the Steering Group meetings which have occurred previously (December 2016). This was the second Steering Group meeting to be held.</p> <p>The Evidence Plan (EP) is a precursor to the Statements of Common Ground (SoCG) and will be used to discuss items throughout all stages of the EIA. The hope is that this should simplify the application process and that all stakeholders will be up to date with materials and a project background prior to receiving documents (PEIR &amp; ES).</p> <p>The project design was presented which is currently very similar to the one presented in the scoping report. However, it was noted that the project design freeze will be occurring in the next few weeks. A full project design update will be provided to the technical review panels in the upcoming meetings (11<sup>th</sup> &amp; 12<sup>th</sup> July).</p> <p>All three types of foundations will be assessed (monopile, suction caisson and quadropods). Gravity bases have been scoped out of the project's design.</p> <p>An indicative layout was presented to illustrate the potential turbine locations. The worst case for each discipline will be agreed and assessed.</p> <p>PEI is expected to be submitted in October 2017. SoCC is anticipated to begin in July 2017. One benefit of the later PEI submission date is that we will now include a longer dataset for ornithology.</p>	No actions.
2	<p><b>Evidence Plan Terms of Reference (ToR)</b></p> <p>The ToR were discussed, updated and agreed by the technical review panels in March 2017.</p> <p>The structure of how each of the groups are connected was presented in the meeting, please see slides. The membership of each group was also presented.</p>	SL to circulate the most up to date version of the ToR and evidence plan log template
3	<p><b>Non- Evidence Plan areas of discussion</b></p>	No actions.

	<p>The LVIA has now been added into the EP and have their own technical review panel. They have attended several meetings with local authorities (inc. TDC, DDC, KCC &amp; Isle of Sheppey DC). The primary aim of these meetings has been to agree viewpoints for the assessment.</p> <p>Shipping and navigation consultation has been undertaken outside of the EP. Discussions with PLA and Trinity House are ongoing. The meetings have been productive and as a result VF have commissioned a pilotage study to understand and identify pinch points of pilotage operations. The next meeting is scheduled to be held 3rd July to discuss the next steps with PLA. The intention is to use their pilotage simulator to understand how the proposed red line boundary of the project will affect operations and how best to mitigate against impacts.</p> <p>Commercial fisheries stakeholders have also been consulted with outside of the EP. Brown and May (leading on this area of the EIA) are currently liaising with IFCA, the local MMO officers and all non-UK consultation. Merlin Jackson (the fisheries liaison officer) is a member of the Thanet Fisherman’s Association (TFA) and is undertaking the local consultation alongside TFA.</p>	
<p>4</p>	<p><b>Technical Expert Panel logs</b></p> <p>The comments/commitment logs have been updated throughout the project and have been used to capture all correspondence and key areas of discussion.</p>	<p>To circulate the comments logs following on from the July technical review panel meetings. Agreement on the logs will be sought.</p>
<p>5</p>	<p><b>Key Areas of Agreement and Disagreement</b></p> <p>LVIA viewpoints –The originally proposed viewpoints have been agreed with an additional six locations. Historic environment viewpoints have also been circulated and are awaiting agreement. There will be numerous photomontages to be prepared and presented. Wirelines have been submitted ahead of upcoming teleconferences. Discussions are currently on-going to decide what will be the worst case for LVIA – 34 turbines (wider spread) or fewer larger turbines. Agreement is to be confirmed but the technical lead has received information from the relevant stakeholders.</p> <p>It was discussed that the use of different foundations (both within Thanet Extension and/or differing from the existing TOWF) may create a visual impact.</p> <p>Marine Mammals – Agreement in principle has been reached on the reference populations, species and assessment criteria. We</p>	<p>Vattenfall to confirm that different types of foundations might be used in Thanet Extension.</p> <p>To get the indicative worst case layout agreed.</p> <p>SL to ensure that the MOD are consulted regarding the intertidal aircraft wreck site.</p> <p>SL to add <i>Sabellaria</i> to the agenda for</p>

	<p>intend to model two locations with different water depths (one shallow and one ‘deep’ (approximately 34 m)). We will be assessing both the traditional criteria and the newer NOAA criteria. Documents summarising datasets and methodology have been issued to the technical review panel for agreement at the next meeting.</p> <p>Intertidal surveys – these will be undertaken on a spring tide. We have experienced issues with obtaining land access from Kent Wildlife Trust who are the land managers on behalf of the National Trust. Access for onshore surveys has now been granted but has not for the intertidal surveys. We have also experienced issues obtaining copies of their data. We could characterise for the purposes of EIA without undertaking the intertidal surveys but our preference would be to undertake the surveys.</p> <p>A historic aircraft wreck site has been identified. Therefore, Wessex Archaeology will be undertaking a walkover survey at the next large spring tide (end of July). Anecdotal evidence suggests it may be visible at low water springs. Our intention/hope is to identify the wreck location and determine how wide an area the wreck is spread over. There is currently a 1 km protection buffer surrounding the site. CP suggested that it is likely to be covered under the 1986 Military Remains Act in case human remains or ordnance are present at the site. SL confirmed that his understanding was that the pilots were able to get out of the aircraft prior to the aircraft crashing. The Nemo cable is crossing to the north of this buffer.</p> <p>The desk based assessment of the geophysical analysis may be provided to the technical review panel ahead of PEI but is programme dependent.</p> <p>HM raised that NE would like to discuss the methodology for assessing areas of <i>Sabellaria</i>. SL confirmed this would be added on to the agenda for the next meeting.</p> <p>Onshore Ecology – the survey areas have been agreed with the relevant stakeholders. It has been agreed that eDNA will be undertaken for Great Crested Newts on ponds screened in using the habitat suitability index.</p> <p>A request for KWT data has been made, e.g. for natterjack toads so we don’t need to disturb them again, however these data have not yet been received. SL &amp; GL are attending a meeting with KWT on 5<sup>th</sup> July with KWT.</p> <p>Offshore Ornithology – these discussions are further advanced than other topic areas. The discussions have primarily focused on the how to blend the vessel and aircraft data and the use of 24 months’ worth of data (best practice). The main species of</p>	<p>the next offshore technical panel meeting.</p>
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	<p>interest is the Red Throated Diver. Interactions with the Outer Thames Estuary SPA are being considered. Discussions are ongoing over which collision risk model should be used (Masden vs Band (2012- if available)). The Masden model (as previously agreed) has been used to date but there is a preference to switch to the band model for the ES assessment.</p> <p>Ground conditions – data requests of various stakeholders have been made, including the EA and local councils. The baseline may be submitted to the review panel prior to PEI for comment of data gaps in order to reduce the work required by the local councils.</p> <p>Traffic and Transport – Data request to KCC have been made. There had been some issues with the PPA so there have been lessons learnt for any future evidence plans.</p> <p>Noise and vibration – Sensitive areas have been identified and agreed. Surveys have been undertaken to inform the baseline.</p> <p>Flood risk – approach has been agreed with the EA. The locations and processes are to be discussed with the EA and KCC on 28<sup>th</sup> June.</p> <p>Offshore Archaeology – Most (or hopefully all) of the collected geophys will be processed and included in the PEI. If there is enough time the Geophys desk based assessment will be circulated ahead of PEI. The geophys was collected at the end of 2016 and the processing began in April 2017. Numerous different methods of varying resolutions were undertaken in the Geophys and Geotech surveys.</p> <p>Onshore Archaeology – The survey areas and approaches have been agreed. Most the discussion has focused on which receptors to assess and the interactions between onshore and offshore e.g. light houses.</p> <p>A high-level overview of Thanet Cable replacement was presented and this will be assessed cumulatively in our EIA.</p>	
<p>6</p>	<p>It is our intention to have another Steering Group meeting prior to the submission of the PEIR. Therefore, the next meeting is likely to be programmed for September 2017. We do note that there may be a clash with the submission of the Vanguard PEIR so this will be taken into consideration and may influence the date of the PEIR submission. DCO application is expected to be in February/March 2018.</p> <p>Next technical review panel meetings – 11<sup>th</sup> &amp; 12<sup>th</sup> July</p> <p>There may be a separate HRA meeting towards the end of July.</p> <p>It is our intention to have 5-week period for S42 comments.</p>	<p>No actions.</p>



	It is anticipated we will request a pre-submission meeting to discuss SoCG.	
7	<p><b>AOB</b></p> <p>RK mentioned the potential of varying turbine heights as presented in scoping. HJ confirmed all turbines will be the same type and height. SL clarified it would look like different heights due to presence of TOWF and distance from different viewpoints.</p> <p>HM will be undertaking a secondment and therefore RW will be taking on HM's role on the project as Case Manager for NE.</p>	No actions.

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## ONSHORE TECHNICAL PANEL MEETING MINUTES

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<b>MEETING ORGANISER:</b>	VATTENFALL WIND POWER LTD
<b>ATTENDEES:</b>	SEAN LEAKE (GOBE CONSULTANTS) SAMMY MULLAN (GOBE CONSULTANTS) TIM GOLDING (GOBE CONSULTANTS) GÖRAN LOMAN (VATTENFALL) JOANNA CLEMENTS (VATTENFALL) OLIVER GARDNER (AMEC FOSTER WHEELER) IAN SIMMS (AMEC FOSTER WHEELER) CAROLINE GETTINBY (AMEC FOSTER WHEELER) KAREN WILSON (AMEC FOSTER WHEELER) AMY ROBERTS (AMEC FOSTER WHEELER) RICHARD CARTLIDGE (AMEC FOSTER WHEELER) HARRI MORRALL (NATURAL ENGLAND) DORA QUERIDO (RSPB) TOM REID (ENVIRONMENT AGENCY) (DIALLED IN) JENNY WILSON (ENVIRONMENT AGENCY) (DIALLED IN) FIONA RUNACRE (DOVER DISTRICT COUNCIL) (DIALLED IN) HELEN JOHNSON (THANT DISTRICT COUNCIL) (DIALLED IN) VANESSA EVANS (KENT WILDLIFE TRUST) (DIALLED IN)
<b>APOLOGIES/MEMBER NOT REQUIRED FOR PARTICULAR MEETING:</b>	HELEN JAMESON (VATTENFALL) IAIN LIVINGSTONE (THANET COUNTY COUNCIL) CAROLYN MCKENZIE (KENT COUNTY COUNCIL) HANNAH CLEMENTS (KENT COUNTY COUNCIL) IAN HUMPHERYES (ENVIRONMENT AGENCY) TOM FOXALL (HISTORIC ENGLAND) JOHN MABBIT (AMEC FOSTER WHEELER) ANA BRAID (AMEC FOSTER WHEELER)
<b>PURPOSE OF MEETING:</b>	TO PROVIDE A PROJECT UPDATE ACROSS THE VARIOUS ONSHORE TECHNICAL REVIEW PANELS AND TO PROVIDE A GENERAL PROJECT UPDATAE FOLLOWING DESIGN FREEZE. ALSO, TO DISCUSS THE HRA SCREENING ASSESSMENT FINDINGS AND METHODOLOGY.
<b>DATE &amp; TIME &amp; LOCATION:</b>	TUESDAY 11 <sup>TH</sup> JULY 2017, 12:30 TO 17:00 VATTENFALL WIND POWER LTD, 1 TUDOR STREET, LONDON. EC4Y 0AH. LILLGRUND MEETING ROOM.

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Agenda item	Topic for discussion	
1	Welcome and Introduction	
2	Overview of the project and update	
3	Overview of the EP process – purpose and aims, the process going forward and update	
4	Cumulative Effects Assessment	
5	Round table discussion – Technical panel leads to provide updates on progress to date, areas of agreement, and planned progress.	
6	HRA screening discussion	
7	AOB	
Notes & Actions	Notes	Action
1	SL provided chair role for the meeting. Round table introductions were made. The presented slides have been circulated to the correspondence list.	Updated slides included with minutes to account for KWT membership of additional EP meeting.
2	<p>SL provided an update on the project including an update on the following key points</p> <ul style="list-style-type: none"> <li>• High level programme dates</li> <li>• PEI October 2017 (this will be a draft ES)</li> <li>• Submission of final application March 2018</li> <li>• Extension encompasses original site;</li> <li>• 8, 10 or 12 MW WTG as base case;</li> <li>• Up to 340 MW capacity</li> <li>• The Red Line Boundary (RLB) being taken forwards to PEI which includes an onshore route through the country park.</li> <li>• Landfall will be made in Pegwell Bay</li> <li>• Offshore the export cables will need to cross Nemo and therefore two routes are being assessed.</li> <li>• FR – confirmed that the RLB now goes through the British Car Auction.</li> </ul> <p>The RLB presented (slide 7) was circulated to the attendees in the slides on the 11/07/17, and therefore all comments previously provided relate to the RLB presented in the scoping.</p> <p>FR noted this is a change from the RLB in the scoping report and referred to scoping opinion para 2.104 reference 'substantial' changes. SL explained that the lack of space for the substation, combined with reducing interactions with the SSSI, was a primary driver for this revision and that we feel the area has been suitably characterised for the purposes of PEI. TG added that these changes can be discussed as part of the EP process ahead of S42.</p> <p>FR requested a plan of the now proposed route and substation to be overlaid on figure 1.2 of the scoping report, and to include district boundaries.</p>	<p>SM to produce a map with the council boundaries, designated sites, the RLB &amp; the scoping boundary. This is circulated with the minutes.</p> <p>Circulate updated presentation.</p>

	<p>VE sought clarification on how the preferred route had been selected, in particular the north and south landfall decision. SL stated that meetings have been held specifically with KWT outside of the Evidence Plan which have not been focussed on data and evidence base. On a meeting with KWT, 05/07/11, the RLB presented in this meeting was presented to KWT. A high level presentation was provided on the factors considered in the route selection process. A number of environmental, engineering and socio-economic factors have been considered and will be fully detailed in the site selection and alternatives chapter in the PEIR. Unfortunately, this chapter will not be made available prior to S42.</p> <p>SL explained that as part of the onward/onshore cable route through the country park the project is trying to take into account the KWT suggestion, from their previous meeting, of the verge by Sandwich Rd as a possible cable route. Therefore, the RLB has been extended following this conversation and will be considered in PEI. VE clarified that KWT have an overarching objection to the route and do not wish for cables to make landfall in Pegwell or Sandwich Bay. In addition, KWT would prefer to avoid Stonelees Nature Reserve. SL stated the project are trying to minimise implications on sites and a possible solution would be to aid habitat objectives, such as implication grass chalklands and removal of non-native trees.</p> <p>RC highlighted that there is a drainage ditch which runs alongside Sandwich Rd. SL confirmed this will be assessed as part of the feasibility assessment, and that the project were aware of other potential feasibility issues.</p> <p>SL confirmed the current design is for the cable to be laid below ground in Stonelees.</p> <p>RC confirmed that the substation should be of sufficient distance to account for both tidal and riverine flood risk.</p> <p>It is noted that KWT are dissatisfied that there has not been an opportunity to consult on the route selection with respect to the norther or southern landfall choice.</p>	
<p><b>3</b></p>	<p>SL provided an overview of the Evidence Plan (EP) process including the purpose and the aims. It is essentially a collaborative process between Vattenfall and the stakeholders to establish robust data on which the EIA and HRA will be based.</p> <p>The consultation undertaken as part of this process will be used to agree SoCG and ultimately this process seeks to</p>	<p>VE to be added to the Groundwater, contaminated land and flood risk review panel.</p>

	<p>streamline the application leaving only those items still to be agreed as a focus for the examination.</p> <p>SL highlighted that it is Vattenfall’s desire to get as many issues ID’d as possible and get to the point of agreement if possible. The EP process should be seen as useful process to follow and a very positive process, that provides all parties with the opportunity to consider the data and evidence underpinning the assessment at an early stage and to ensure as far as is possible that there is early consensus on key issues, and the adequacy of the information being used to address those issues and concerns.</p> <p>SL introduced the members of the different panels members.</p>	
<p>4</p>	<p>The Cumulative Effects Assessment (CEA) approach was presented by OG.</p> <p>A four stage approach is proposed with Stages 3 &amp;4 being presented in PEI. Projects are identified to be within 5 km of the RLB. Only applications post June 2016 have been considered however projects which may still provide a cumulative impact before 2020 or after 2020 will be considered, e.g. nemo.</p> <p>Key projects include</p> <ul style="list-style-type: none"> <li>• Richborough Connection (NSIP DCO)</li> <li>• Manston Airport (NSIP DCO)</li> <li>• The London Resort (NSIP DCO)</li> <li>• M20 Junction 10A (NSIP DCO)</li> <li>• Land off Chequer Lane, Ash (90 dwellings)</li> <li>• Former Kumor Nursery and 121 Dover Road, Sandwich (67 dwellings)</li> <li>• Land Adjacent To Salmestone Grange Nash Road, Margate (250 dwellings)</li> <li>• St Stephens Haine Road, Ramsgate (95 dwellings)</li> <li>• Land West Of Hundreds Farm House Canterbury Road Westgate On Sea (64 bed care home)</li> </ul> <p>FR stated that if Richborough is successful with their DCO application then it will be a staged programme with the removal of lines in 2021. This should be considered cumulatively.</p> <p>VE stated that projects either side of 2020 if they have the potential to provide cumulative effects.</p> <p>HJ – Was also interested any live projects which may provide cumulative impacts, such as discharges. HJ also expressed a wish to see a draft programme for construction. SL confirmed this will be provided in the PEIR.</p>	<p>A note is to be circulated for agreement on the proposed methodology.</p> <p>SL/SM/OG to circulate the long and short onshore and offshore lists. Three weeks will be granted to review the lists. We request that any key projects are flagged on receipt of the lists.</p>

<p>5</p>	<p><i>Onshore Biodiversity</i> CG presented a summary of progress to date on this topic including the desk based search, consultation and field surveys. Due to the RLB being finalised survey scoped will be refined and this will be agreed with consultees going forwards. Phase 1 surveys are continuing throughout the summer. No eDNA has tested positive for GCN so far but we note that GCN were not expected to be in the area.</p> <p>Saltmarsh will be assessed in the offshore chapters as not to cause duplication or confusion.</p> <p>Access to KWT has been restricted due to requirement to prevent nightingale disturbance.</p> <p>A request has been made to KWT for natterjack toads and sand lizard data. CG to send a follow-up email confirming the data exchange cc'ing VE.</p> <p>VE noted there are confidentiality issues with the data and should not be entered into the public domain.</p> <p>Technical baselines are being undertaken for PEI but some may be incomplete due to on-going surveys and data analysis, however, these will be complete for the Application.</p> <p>.....</p> <p><i>Ground Conditions</i></p>	<p>NE (HM) to provide any available sand lizard data. Though it is likely that they will be screened out based on the new RLB. If these data are available then they will be assessed.</p> <p>IS to circulate a method statement for intertidal/overwintering bird surveys for agreement.</p> <p>SL to ensure that within the Site Selection and Alternatives chapter clearly considers all alternative routes.</p> <p>IS/SL to circulate ornithology technical report to the review panel ahead of the next meeting. Suggest issue in early September/end of August.</p> <p>SM to circulate a placeholder for next onshore ecology technical panel meeting, potentially for 1<sup>st</sup> week in September.</p> <p>SM to circulate the original proposed survey scope, to TDC and KCC, as circulated in April prior to RLB finalisation. Note this will be for completeness and not for comment. An updated proposed survey scope will be presented/circulated for the refined RLB to seek agreement.</p> <p>.....</p> <p>All – to agree on 1 km study area/buffer</p>
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	<p>A Phase 1 geo-environmental desk study has been prepared in accordance with Contaminated Land Report 11. This is currently under-going internal review by the project.</p> <p>An initial meeting was held with the EA to discuss the primary findings of the geo-environmental desk study and flood risk matters.</p> <p>.....</p> <p><i>Flood Risk</i></p> <p>This section was presented by RC. The characterisation of the area has included a flood risk appraisal, site walk over and a consultation meeting with EA, KCC and IDB.</p> <p>We are currently using the data from the 2010/12 Lower Stour tidal model but will use the updated model is made available with sufficient time to include in the ES.</p> <p>A flood screening report is being prepared for PEI.</p> <p>Our understanding is that Nemo had a requirement to maintain the soil structure and replace as soon as possible for installation. See Action.</p> <p>The RLB has been adjusted during design to take into account flood risk which has resulted in the inclusion of the British Car Auction land.</p> <p>Consultation about the proposed works to the sea defence and landfall are ongoing.</p> <p>.....</p> <p><i>Onshore Archaeology</i></p> <p>Presented by AR. A desk based assessment for the RLB is on-going as is the drafting of the PEI chapter. A site walkover has been undertaken.</p> <p>PEI scope and viewpoints have been agreed with DDC, KCC and TDC. It is noted that these viewpoints were selected in accordance with the scoping RLB, however a review has been undertaken by the LVIA team who confirm that the viewpoints remain appropriate.</p> <p>.....</p> <p><i>Population/Human Environment</i></p>	<p>around the RLB for geo-environmental desk study.</p> <p>OG to liaise with FR to discuss data requests / environmental information on the basis of the revised/refined RLB.</p> <p>OG to circulate the geo-environmental desk study will be circulated to the technical panel prior to PEI.</p> <p>.....</p> <p>VE to provide information/answers to "Was the requirement for sidecast in Stonelees for Nemo in order to keep the soil in close proximity? Was any consideration given the risk of flood from that sediment?"</p> <p>RC/OG to circulate the Flood Risk Screening report ahead of PEI.</p> <p>.....</p> <p>AR/MB to agreed scope with HE.</p> <p>.....</p> <p>KW/OG to confirm with KCC study area and requirement for a traffic assessment</p>
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	<p>The technical baselines have been finalised by the project and the PEI chapters are progressing. Note: no separate baseline for air quality will be produced.</p> <p>Traffic surveys have been undertaken and will be assessed following the guidance in IEMA 1993.</p> <p>The baseline for air quality has been determined using the TDC Local Air Quality Management review and assessment, this will be assessed following the guidance in IAQM 2014 and IAQM/EPUK 2017. For more information please see circulated slides.</p> <p>A baseline sound survey has been undertaken. The methodology for the assessment was agreed with DDC. The assessment will follow the guidance in BS 5228:2009 +A1:2014 and BS 4142:2014. For more information please see circulated slides.</p> <p>FR advised of possible residential use (Escana) in the Bay Point Club in light of the revised RLB.</p>	<p>based on construction traffic movements and distribution worst case assumptions provided in the project design.</p> <p>KW/OG to confirm that Escana at the Bay Point Club is no longer residential and is included in the noise and vibration assessment as appropriate. This was historically a residence.</p> <p>KW to send TDC the noise survey methodology for completeness and not for comment as the surveys have now been undertaken.</p>
<p><b>6</b></p>	<p>Presented by SM, IS, CG and SL.</p> <p>The aims, structure methodology, anticipated effects and key findings of the HRA screening report were presented. For more information please see circulated slides. Noting that only onshore HRA considerations were discussed in the meeting.</p> <p>Both RSPB and NE did not have any significant concerns with the methodology used and the general onshore findings. Written comments to be provided.</p> <p>SL presented that VWPL have been undertaking analysis on the existing <i>in situ</i> cable for Thanet Offshore Wind Farm. This analysis has confirmed that the cable will continue to fail and therefore the feasibility of installing a new cable is being considered. This will consist of replacing the offshore portion of the cable and to 'plug-in' to the existing transition joint bay by the petrol station. No onshore works, except those to 'plug-in', will be required. It is proposed that the existing offshore cable is to be left <i>in situ</i> and not removed.</p>	<p>All – written comments on the HRA (where appropriate) to be provided.</p> <p>The figures within the HRA screening will be updated with the latest RLB and will aim to address as received comments.</p>
<p><b>7</b></p>	<p>No minutes to add.</p>	



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**OFFSHORE TECHNICAL PANEL MEETING MINUTES**

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<b>MEETING ORGANISER:</b>	VATTENFALL WIND POWER LTD
<b>ATTENDEES:</b>	<p>SEAN LEAKE (GOBE CONSULTANTS)</p> <p>SAMMY MULLAN (GOBE CONSULTANTS)</p> <p>SALLY KAZER (GOBE CONSULTANTS)</p> <p>GÖRAN LOMAN (VATTENFALL)</p> <p>JOANNA CLEMENTS (VATTENFALL)</p> <p>JESPER KYED LARSEN (VATTENFALL)</p> <p>CAROL SPARLING (SMRU CONSULTING)</p> <p>ALEX FAWCETT (NATURAL ENGLAND)</p> <p>CLAIRE LUDGATE (NATURAL ENGLAND)</p> <p>SEAN SWEENEY (APEM)</p> <p>ROGER BUISSON (APEM)</p> <p>IAN HUMPHERYES (ENVIRONMENT AGENCY)</p> <p>CHRIS PATER (HISTORIC ENGLAND)</p> <p>NATHAN COUGHLAN (KENT COUNTY COUNCIL)</p> <p>ALEX SANSOM (RSPB) (DIALLED IN)</p> <p>EUAN MCNEILL (WESSEX) (DIALLED IN)</p> <p>ANTHONY BROOKS (ABPMER) (DIALLED IN)</p> <p>MARGARET TIERNEY (DIALLED IN)</p> <p>GEORGINA EASTLEY (CEFAS) (DIALLED IN)</p> <p>JACKIE EGGLETON (CEFAS) (DIALLED IN)</p> <p>TIM FRAYLING (NATURAL ENGLAND) (DIALLED IN)</p>
<b>APOLOGIES/MEMBER NOT REQUIRED FOR PARTICULAR MEETING:</b>	<p>MARK DAVISON (ENVIRONMENT AGENCY)</p> <p>IAIN LIVINGSTONE (THANET DISTRICT COUNCIL)</p> <p>HELEN JOHNSON (THANET DISTRICT COUNCIL)</p> <p>STUART CHURCHLEY (HISTORIC ENGLAND)</p>
<b>PURPOSE OF MEETING:</b>	TO PROVIDE A PROJECT UPDATE ACROSS THE VARIOUS OFFSHORE TECHNICAL REVIEW PANELS AND TO PROVIDE A GENERAL PROJECT UPDATE FOLLOWING DESIGN FREEZE. ALSO, TO DISCUSS THE HRA SCREENING ASSESSMENT FINDINGS AND METHODOLOGY.
<b>DATE &amp; TIME &amp; LOCATION:</b>	<p>WEDNESDAY 12<sup>TH</sup> JULY 2017, 10:00 TO 15:30</p> <p>VATTENFALL UK, 1 TUDOR STREET, LONDON. EC4 Y0AH. LILLGRUND MEETING ROOM.</p>

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Agenda item	Topic for discussion	
1	Welcome and Introduction	
2	Overview of the project and update	
3	Overview of the EP process – purpose and aims, the process going forward and update	
4	Cumulative Effects Assessment	
5	Round table discussion – Technical panel leads to provide updates on progress to date, areas of agreement, and planned progress.	
6	HRA screening discussion	
7	AOB	
Notes & Actions	Notes	Action
1	SL provided chair role for the meeting. Round table introductions were made. The presented slides have been circulated to the correspondence list.	n/a
2	<p>SL provided an update on the project including an update on the following key points</p> <ul style="list-style-type: none"> <li>• High level programme dates</li> <li>• PEI October 2017 (this will be a draft ES)</li> <li>• Submission March 2018</li> <li>• Extension encompasses original site;</li> <li>• 8, 10 or 12 MW WTG as base case;</li> <li>• Up to 340 MW capacity</li> <li>• The Red Line Boundary (RLB) being taken forwards to PEI which includes an onshore route through the country park.</li> <li>• Landfall will be made in Pegwell Bay</li> <li>• Offshore the export cables will need to cross Nemo and therefore two routes are being assessed for feasibility.</li> </ul> <p>SL explained that an additional ‘elbow’ had been added in to the offshore export cable to provide an option to route south in order to provide an option for cable crossings and potentially to avoid high densities of magnetometer hits. Some of the Nemo data will be used to characterise the baseline but there will be an area without data. The baseline, for the area without data, will be characterised by interpreting the data in proximity of the area.</p>	<p>Circulate updated presentation.</p> <p>Updated Evidence Plan logs to be circulated.</p> <p>SM/SL to circulate a plot of the onshore RLB.</p>
3	<p>SL provided an overview of the Evidence Plan (EP) process including the purpose and the aims. It is essentially a collaborative process between Vattenfall and the stakeholders to establish robust data on which the EIA and HRA will be based.</p> <p>The consultation undertaken as part of this process will be used to agree SoCG and ultimately this process seeks to streamline the application leaving only those items still to be agreed as a focus for the examination.</p> <p>SL highlighted that it is Vattenfall’s desire to get as many issues ID’d as</p>	

	<p>possible and get to the point of agreement if possible. The EP process should be seen as useful process to follow and a very positive process, that provides all parties with the opportunity to consider the data and evidence underpinning the assessment at an early stage and to ensure as far as is possible that there is early consensus on key issues, and the adequacy of the information being used to address those issues and concerns.</p> <p>SL introduced the members of the different panels members.</p>	
<p>4</p>	<p>The Cumulative Effects Assessment (CEA) approach was presented by SL.</p> <p>A four-stage approach is proposed with Stages 3 &amp;4 being presented in PEI. Projects are identified to be within 5 km of the RLB. Only applications post June 2016 have been considered however projects which may still provide a cumulative impact before 2020 or after 2020 will be considered, e.g. nemo.</p> <p>Stage 1 was to generate a long list of ‘other developments’. Stage 2 was to identify a short list of ‘other developments’. A short list has been derived for each of the offshore assessments based on the sensitivity of the receptors and an appropriate screening area. The search area extents for each topic were presented, please see slides for more details. Note: 5km has been used for onshore. Noting that the shipping and navigation assessment is being consulted on with PLA and Trinity House outside of the EP.</p> <p>SL provided a high-level overview of the Thanet Cable Replacement project for the existing Thanet OWF. He also confirmed that this would be considered in the CEA assessment for Thanet Extension.</p> <p>RB explained that the CEA for offshore ornithology would follow current recommended practice and use a 5 ‘Tier’ approach and that it would include OWFs that were operating in the period that baseline data was collected to recognise the long timescales before population effects might become apparent.</p> <p>TF noted that we proposed to use the max foraging in breeding season as a range and suggested that the non-breeding impacts should also be considered. RB confirmed that both breeding and non-breeding have been considered in the PEI, assessed against the relevant BDMPS.</p>	<p>A note is to be circulated for agreement on the proposed methodology.</p> <p>SL/SM to circulate the long and short onshore and offshore lists. Three weeks will be granted to review the lists. We request that any key projects are flagged on receipt of the lists.</p>
<p>5</p>	<p><i>Offshore Ecology</i> This section was presented by SM, CS (marine mammals) and SL.</p> <p>CS presented the outstanding items for agreement for marine mammals.</p> <p>CS proposed that based on the findings of the baseline report, the impact assessment should include harbour porpoises, grey seals and harbour seals, with all other species scoped out. CL agreed.</p>	<p>To circulate the technical baselines, ahead of PEI, for benthic ecology, fish and shellfish, Marine Mammals (already circulated) and Offshore Ornithology</p>

	<p>CS explained that there had been a small error in the table presented in the tables in the methodology briefing note. Therefore, updated tables will be circulated. These demonstrate that the survey data, collected by APEM, is within a few percent of the SCANS III data.</p> <p>CL explained the NE guidance is to undertake a comparative assessment between the ‘traditional’ noise thresholds and the NOAA guidance. This is in-keeping with our proposed methodology.</p> <p>CS presented our proposed approach for CEA specifically for marine mammals and sought feedback on this. A three-tiered approach is proposed. Projects will be scoped in or out for each species based on their management units/reference populations. We intend to assess all projects for up to 5 years after construction.</p> <p>CL requested that an PCoD assessment is considered. CS confirmed this would be considered but is dependent on available and consistent data/information.</p> <p>Indirect effects such as changes to prey will be considered within the marine mammal’s assessment.</p> <p>SM provided a summary of areas of agreement from the technical review panel.</p> <p>SM confirmed that the MCZ assessment will be a standalone chapter/document.</p> <p>IH has requested that non-native species are considered in the assessment, in particular the stepping stone effect from North to South Kent. SL confirmed that they will be assessed where appropriate, including in the WFD assessment.</p> <p>SM proposed a meeting with the technical review panel in September to discuss circulated technical baselines and further HRA considerations.</p> <p>SL proposed a potential mitigation for <i>S.spinulosa</i> would be avoidance of core reefs. SL proposed core reefs could be defined based on the Bussell and Saunders (2010) paper. A biogenic reef management could be prepared ahead of Examination.</p> <p>AF explained that the core reef guidance had been written for The Wash which had multiple years’ of survey data, and areas of reef that were less ephemeral than may be the case at Thanet. IH stated that Nemo had found additional areas of reef during their pre-construction surveys. SL confirmed that pre-construction surveys would be undertaken for Thanet Extension. IH stated that video drop downs would be preferable to confirm presence of reef over sidescan alone. SL confirmed that appropriate ground truthing would accompany any pre-construction survey, as had been undertaken for the characterisation survey.</p>	<p>(already circulated).</p> <p>Technical review panel members to provide written comments on the marine mammals briefing note.</p> <p>CL to check if management units for grey seals had been finalised.</p> <p>SM to circulate placeholder for next review panel meeting.</p> <p>To provide a summary of how many survey campaigns, coverage and temporal scale for identification of biogenic reefs.</p> <p>AF &amp; IH to provide written comments on the core reef/ persistent reef/ key reef areas methodology.</p>
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	<p>A short discussion of about the data gap was had. SL stated that we have a good characterisation and we will interpolate in order to characterise the data gap area, which comprises an area approximately 200m * 1000m. This will also be based on the working assumption that sensitive features, such as reefs, might be present. JE stated that if the methodology and area are clearly detailed in PEI then in principal she is content. AF noted that this is a project risk, however the approach is sensible in the absence of data.</p> <p>IH proposed a potential mitigation could be prevention of particular gear types within the array. AF added that the wider minimum space between the turbines might enable larger fishing vessels to be present than in TOWF.</p> <p>.....</p> <p><i>Offshore Ornithology</i></p> <p>The technical baseline report has been circulated to the technical review panel for agreement. This report summarises the key species and abundance estimates.</p> <p>Members of the technical review panel agreed to the change from boat surveys to aerial surveys.</p> <p>For CRM TF suggested that the project should use Band (2012) with the upper and lower confidence intervals. As per Hornsea P2. TF has provided a link. It is unlikely that the Masden model will be available before application as the Marine Scotland study will not report until late 2017 at the earliest.</p> <p>Consideration was given to the likely disturbance ranges for species to aid in estimating cumulative displacement. TF suggested that for RTD in particular the assumption of 100% displacement within the 4km buffer should be used as best practice. RB confirmed that the risk in this approach is that prior projects were consented on the basis of varying displacement distances from 0-4km. The result would be that the cumulative assessment would under-predict the total contribution of other projects and, in comparison, over-predict the contribution of Thanet Extension.</p> <p>AS suggested that in presenting the displacement matrices it is possible to review displacement in the context of varying percentages.</p> <p>TF and AS agreed the key species proposed and in particular red throated diver (RTD) but noted surveyed gannet numbers were lower than expected. SS noted that the highest counts for the TOWF surveys were in October. Inter annual variation may be the cause of the low counts and the intention is to have at least two years of October data in the ES.</p> <p>A brief discussion with regards the ability to present a full 24 months of aerial data alone (noting that a further 3 months of vessel data are also available). TF and AS noted that it was not the preferred situation but would review with the final data and combined vessel/aerial as it became available. RB and SS noted that due to the change in</p>	<p>.....</p>
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	<p>programme the project would now be in a position of presenting a longer dataset, very nearly the 24 months preferred.</p> <p>.....</p> <p><i>Offshore Archaeology</i> Presented by EM. The technical baseline is currently in the process of being updated with the Nemo data. An archaeological assessment of the Geophys survey data has been undertaken.</p> <p>A 500 m buffer around the RLB has been agreed by the technical review panel. It was noted that it is hard to establish whether hits are anthropogenic such as UXO.</p> <p>Wessex attended a meeting with Stuart Churchley - minutes circulated. Local knowledge suggests further south than previously thought as artefacts were recovered in the 1990s. A walkover survey is to be undertaken on a large spring tide (July 2017) to hopefully confirm the location and constrain where the concentration of material is. It is currently thought to be outside of the study area.</p> <p>Areas of difficulty/disagreements which primarily focus on data gaps. Please see slides for more detail. CP sough clarification of how indirect effects such as on Goodwin Sands would be addressed. EM confirmed the chapter would cross reference to other relevant chapters such as physical processes. TB confirmed that sediment plume concentrations and deposition would be considered fully in the technical chapter for physical processes. SL confirmed that narrative could be included directly in the chapter based on the physical processes narrative.</p> <p>CP queried were the methodology for setting would be outlined. EM confirmed both the methodology, baseline and assessment would be outlined in the PEIR.</p> <p>CP queried how the data gap would be addresses. EM confirmed that data searches had been undertaken including through NHE and KCC however there is a remaining gap in the Geophys surveys. SL proposed a DBA for the area and confirmed that pre-construction surveys would be undertaken. CP requested that is made clear in the reporting where field data are present.</p> <p>CP requested that reporting includes any uncertainties regarding data and impacts on features, anthropogenic items and unknowns. SL confirmed that data uncertainty will be included in reporting.</p> <p>SL confirmed that if the technical baseline were provided before PEI then suggested changes could be made ahead of PEI. The technical report would be available approximately late August if stakeholders would like to review it in advance of PEI however it might not contain the findings of the July surveys. This report would provide the baseline and not the assessment itself. Technical panel to confirm if they would like the document ahead of PEI.</p>	<p>.....</p>
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<b>6</b>	<p>Presented by SM, RB and SL.</p> <p>The aims, structure methodology, anticipated effects and key findings of the HRA screening report were presented. For more information please see circulated slides. Noting that only offshore HRA considerations were discussed in the meeting.</p> <p>AF requested that definitive terms be used but confirmed that NE's comments would be collated and provided to the project.</p> <p>MMO confirmed they would be supplying a formal response.</p> <p>Cefas confirmed they would be supplying a formal response.</p> <p>TF noted a table formatting error and identified that rows in the table, relating for instance to kittiwake (Flamborough), should be reviewed/corrected.</p> <p>TF suggested that gannets and kittiwakes should be screened in based on potential in-combination effects as opposed to awaiting CRM. However, he did note that it is likely that they will be screened out in the next step of the assessment.</p> <p>TF noted that RTD should be screened in as 100% disturbance up to 4 km but a larger distance should be considered in RIAA. RB noted this and stated that Outer Thames Estuary SPA has been screened in to the assessment despite being outside of the 4 km screening buffer.</p> <p>TF noted that little tern should not be screened out on the basis that there was not currently a breeding population present. Additional explanation is required as to why it was screened out including reference to foraging range.</p>	<p>All – written comments on the HRA (where appropriate) to be provided.</p> <p>The figures within the HRA screening will be updated with the latest RLB and will aim to address as received comments.</p>
<b>7</b>	No minutes to add.	

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**HRA TECHNICAL PANEL MEETING MINUTES – 02/10/17**

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**MEETING ORGANISER:** VATTENFALL WIND POWER LTD

**ATTENDEES:**

- SEAN LEAKE (GOBE CONSULTANTS)
- SAMMY MULLAN (GOBE CONSULTANTS)
- SALLY KAZER (GOBE CONSULTANTS)
- GÖRAN LOMAN (VATTENFALL)
- JESPER KYED LARSEN (VATTENFALL) (DIALLED IN)
- JULIE DREW MURPHY (RCG)
- WILLIAM HUTCHINSON (NATURAL ENGLAND)
- CHRISTINA RELF (NATURAL ENGLAND)
- CLAIRE LUDGATE (NATURAL ENGLAND) (DIALLED IN)
- TIM FRAYLING (NATURAL ENGLAND) (DIALLED IN)
- ROGER BUISSON (APEM)
- SEAN SWEENEY (APEM) (DIALLED IN)
- IAN SIMMS (AMEC FOSTER WHEELER) (DIALLED IN)
- ALEX SANSOM (RSPB) (DIALLED IN)
- MARGARET TIERNEY (MMO) (DIALLED IN)

**APOLOGIES/MEMBER NOT REQUIRED FOR PARTICULAR MEETING:**

- HEATHER TWIZELL (NATURAL ENGLAND)
- IAIN LIVINGSTONE (THANET DISTRICT COUNCIL)
- HELEN JOHNSON (THANET DISTRICT COUNCIL)
- JOANNA CLEMENTS (VATTENFALL)
- HELEN JAMESON (VATTENFALL)
- IAN HUMPHERYES (ENVIRONMENT AGENCY)
- DORA QUERIDO (RSPB)
- CAROLINE GETTINGBY (AMEC FOSTER WHEELER)
- BRYONY CHAPMAN (KENT WILDLIFE TRUST)
- VANESSA EVANS (KENT WILDLIFE TRUST)
- LINDSEY BOOTH-HUGGINS (MMO)
- ALEX FAWCETT (NATURAL ENGLAND)

<b>Agenda item</b>	<b>Topic for discussion</b>
<b>1</b>	Welcome and Introduction
<b>2</b>	Overview of the project and update
<b>3</b>	HRA Screening



4	Red Throated Diver Discussion	
5	Marine Mammals Discussion	
6	<i>RIAA Methodology – Alone</i>	
7	<i>RIAA Methodology – In-combination</i>	
8	HRA Onshore	
9	AOB	
<b>Notes &amp; Actions</b>	<b>Notes</b>	<b>Action</b>
1	<p>SL presented the proposed RLB for the Thanet Extension project. The array area was defined at the scoping stage. The Pegwell Bay landfall option, from scoping, has been selected over the Sandwich Bay option. The offshore export cable corridor has been amended to enable an offshore crossing of Nemo link cable.</p> <p>SL presented the change to the onshore RLB (previously presented in July). SL presented an overview of the two different onshore cable routes being taken forwards to Preliminary Environmental Information (PEI). SL stated that all cables laid in the country park will be surface laid as a bund. The addition of the second route was to directly take into account KWT’s preference to avoid Stonelees Nature Reserve. This route is known as Option 1: Nemo crossing cable route. Option 1 has resulted in the RLB being extended to account for an onshore crossing of Nemo and now encompasses Sandwich Road.</p> <p>A high-level feasibility report has now been completed to assess constraints within Sandwich Road, which subject to the final studies indicate that whilst not optimal in engineering terms it may be feasible to install the cables in Sandwich Rd. Further feasibility studies are ongoing which will be used to inform the final design, alongside formal consultation on the PEI. There may also be additional constraints within the road. This option would require the cables to (in profile) be aligned as a ‘square’.</p> <p>Feasibility studies for the proposed Nemo crossing within the country park are also ongoing.</p> <p>Both options will be taken forwards for formal Section 42/47 consultation.</p> <p>Therefore, there is an area of the proposed RLB that has not been surveyed. This has been discussed with NE, and agreed as not representing a risk to designated sites or European Protected Species but will need to be discussed further with other stakeholders.</p> <p>The substation was originally going to be sited at Richborough Energy Park, however, this site was in close proximity to the SSSI and there was limited space available which inhibited engineering designs/ options, e.g. choice between AIS or GIS substations. Therefore, the substation is proposed to be located at Richborough Port. Substation dimensions have changed slightly, such as a reduction in height since the July meeting.</p>	

	<p>Pegwell Bay Country Park has been constructed on a historic landfill. The sea defence's primary purpose is to prevent leachate escape. Therefore, the project will need to extend the sea defence seawards in order to, bring the cables on land and, not to interact with the historic landfill. SL presented both Transition Joint Bay (TJB) options being assessed in the PEI (on the saltmarsh (Option 1) or within the country park (Option 2). The location for Option 2 has not yet been determined and could be very close to the sea defence or further inland towards to Nemo crossing (see below). Option 1 will result in 0.2% of the saltmarsh within the Sandwich Bay SAC. SL noting that saltmarsh is not a designated feature. The percentage of saltmarsh loss for the Sandwich Bay SPA will be smaller than 0.2% as it represents a larger spatial area.</p> <p>SL presented the proposed onshore Nemo crossing, noting that this will not be within a European designated site. It could be potentially 5.2 m high subject to minimum separation distances between Thanet Extension and Nemo cables. The cable separation assumptions are subject to on-going engineering feasibility studies. The data for these studies has only recently become available to VF. There will be a 1:5 gradient, which results in a maximum 55 m diameter. SL stated that there could be a net gain through this option by sensitive planting/ similar mitigation as Nemo to contribute to the conservation objectives of the country park and by routing around Stonelees Nature Reserve.</p> <p>The SoCC has been consulted on and will be sent in October. PEI is expected to be submitted to consultation on 27<sup>th</sup> November 2017 but there will be seven weeks consultation period (until 12<sup>th</sup> January) for S42/ S47. The DCO application is expected to be submitted in April 2018. PEI has been delayed due to the incorporation of an additional onshore cable route (Option 1).</p> <p>It is our intention to submit the RIAA ahead of the application after the S42 commencement. NE, RSPB and KWT will be invited to provide comment on the RIAA.</p>	
<p><b>2</b></p>	<p><i>HRA Screening</i></p> <p>SK thanked stakeholders for their comments on the HRA screening report. The finalised HRA Screening report contains a table with comments received and how they have been addressed.</p> <p>SK stated that it is not our intention to repeat the screening in the report but to include it in the end of the document as an Appendix or Annex. This was agreed by NE (WH, CR &amp; TF).</p> <p>There is a table within the RIAA which will state any changes to the screening that may have occurred between screening and RIAA. Therefore, there will not be a requirement to repeat or reissue the screening report.</p>	

	<p>The finalised HRA Screening report was circulated w/c 25<sup>th</sup> Sept. No new sites have been screened in due to the included changes.</p>	
<p>3</p>	<p><i>Red Throated Diver (RTD)</i></p> <p>RB stated that we have used 6.5 km as our HRA Screening buffer for RTD in the HRA screening report. This has been based on local evidence and data analysis from the London Array construction phase. The MRSea package indicated no statistically significant effect at 6.5 km during construction phase. Therefore, this provides a local evidence base and the project consider it to be more appropriate than applying a blanket 10 km.</p> <p>TF stated that the 10 km buffer is based on a range of evidence, several studies indicated RTD displacement beyond 10 km. APEM report states that effects were seen beyond 10 km. TF suggests that up to 10 km should be used as a screening buffer. RB suggested said that the 6.5 km distance has been applied for screening purposes and that it is based on the distance that the statistics shows an effect that differs significantly from being zero disturbance (at greater distances any observed departure from zero disturbance is not significant). RB stated that Outer Thames Estuary SPA will be screened in using 6.5 km.</p> <p>SS stated the buffer was purely to screen sites, based on statistical evidence, which has screened-in OTE SPA. SS stated that moving from a 6.5 km distance to a 10 km distance would not screen in any other additional sites.</p> <p>TF agreed it may not change any decisions or findings of the HRA Screening. TF requested that is noted that his advice is that the screening buffer should be up to 10 km and the screening buffer should be stated in the RIAA. TF stated the NE preference to use 10 km to screen is based on evidence that displacement of RTD has been reported at 8-9 km (Lincs OWF) and 13 km (Horns Rev II). JKL asked whether local evidence should be considered. TF agreed that local evidence should be used but the 10 km effect is drawn from the results presented in the APEM report that provide evidence of displacement up to 10km (RB acknowledged this but said that the reported displacement effects beyond 6.5 km were not statistically significant).</p> <p>SL confirmed that a caveat could be stated in the RIAA report. SK confirmed that 6.5 km/10 km refers purely as a screening buffer and not an assessment buffer.</p> <p>TF agreed with a 4 km assessment buffer assuming 100% displacement was ok for the assessment stage but that for screening the distance may exceed 10 km.</p> <p>SS proposed a footnote alteration to state the 6.5 km that 'it may be a greater distance as a result of local variation' as a compromise.</p>	<p>SK to ensure that a statement is included within the RIAA about buffer distances.</p>

	<p>TF stated that the screening buffer is not equivalent to the radius of LSE</p>	
4	<p><i>RIAA Methodology – Alone</i></p> <p>SK provided an overview of the proposed methodology for the RIAA. This included a brief description that the assessment will be effect based with relevant sites being identified for each effect.</p> <p>Where available conservation objectives will be presented and assessed. The nature of the effect will be described, drawing on existing project literature, with the assessment of adverse effects on Integrity effect drawing on the significance of the effect, conservation objectives, the conservation status of the feature, project mitigation and whether the effect would be sufficient to lead to an Adverse Effect on Integrity.</p> <p>In terms, of transboundary sites have been screened in for marine mammals (grey seals (eight) and harbour porpoises (seven)). SK stated we cannot find the conservation objective (in English) for some of the sites and we propose to apply the Southern North Sea cSAC conservation objectives as proxy for the transboundary harbour porpoise site, with the standard definition of FCS for harbour and grey seal transboundary sites. CL confirmed that would be acceptable for (grey and harbour) seals and for harbour porpoises.</p>	
5	<p><i>RIAA Methodology – In-combination</i></p> <p>In-combination screening is based on those plans and projects identified in the relevant ES chapters from each of the topics, e.g. Marine mammals.</p> <p>A list has been devised to determine which projects may result in in-combination interactions. This list is based on the maximum relevant screening distance.</p> <p>Determination of LSE in-combination is proposed to take into account available information, effect-pathway-receptor and potential for a physical/temporal interaction.</p> <p>A tiering approach will be utilised, to take into account the different amounts of information available for new projects.</p> <p>NE agreed that the presented approach seemed reasonable.</p>	
6	<p><i>RIAA – Marine Mammals</i></p> <p>Presented by SK.</p> <p>Viability to draw on ES chapter (PTS &amp; TTS).</p> <p>Effective Deterrent Radius (EDRs) agreed to provide spatial disturbance for piling (26 km), UXO (26 km) &amp; Seismic surveys (5 km-</p>	

	<p>10 km depending on information available/type of survey), during construction of the array.</p> <p>SK clarified that information available for seismic surveys is often limited, so 10 km is precautionary as usually applicable to air guns only.</p> <p>CL confirmed the parameters presented on the slide.</p>	
<p>7</p>	<p><i>HRA Onshore</i></p> <p>IS is leading onshore HRA aspects. IS raised that embedded mitigation thus far will remove LSE for the SPAs, such as intertidal working and lighting. SL confirmed that mitigation will be the same as that applied to Nemo for intertidal areas, i.e. a seasonal restriction between October and March. IS confirmed that there will be an intertidal works restriction (October to March inclusive) in order to provide protection for overwintering birds.</p> <p>SL presented that we are proposing 7 am to 7 pm (7 days a week) in the broader working areas. There will be a request for 24 hrs working at the landfall for cable pulling and if Option 1 cable route is selected then a short discreet event might be required to cross the TOWF cable within Sandwich Road. There may be other discreet events where 24 hours work may be required such as during commissioning or concrete laying, however these events will be an exception to normal working hours and would involve staff being present with hand tools rather than heavy plant.</p> <p>SL confirmed that there are Natterjack toads present in Stonelees NR, and Nemo were required to have a seasonal restriction. SL would like to understand whether the seasonal restriction for NEMO was/is implemented and was a result of porous data. Further discussions on this are proposed for the onshore EP meeting (3<sup>rd</sup> October).</p> <p>IS has confirmed that there will be No LSE in terms of directly on birds and that several impacts screened in during the Screening phase will now be determined as No LSE as the project design has been refined. Further work will be required to determine whether there will be LSE on other features of the SPAs such as supporting habitats.</p>	
<p>8</p>	<p><i>AOB</i></p> <p>CR requested information about the efficacy of saltmarsh recovery and mitigation from previous cables in the local area. SL confirmed that there was a rapid recovery (2010 to 2012) of saltmarsh for the TOWF project. The area of saltmarsh we are proposing to go through is similar to that of TOWF. Saltmarsh was taken into account as part of the landfall location decision in the site selection. Where there is a narrowing of saltmarsh this area has been selected as our landfall to reduce interaction with saltmarsh.</p>	<p>SL to confirm working hours due to recreational access restrictions.</p>

	<p>SL stated that HDD under the saltmarsh was considered but the risk was considered to be high, as if they had failed then it would require trenching a long distance through primary saltmarsh.</p> <p>SL confirmed that UXO will be included with the Thanet Extension application within the final application. Therefore, this will be included the HRA process for the Thanet Extension project.</p> <p>AS confirmed that she has no further comment on the HRA and agreed on the proposed in-combination approach.</p> <p>NE confirmed that the HRA screening report can form an appendix to the RIAA and does not need to be duplicated in the body of the report.</p> <p>MT requested confirmation for where the MHWS line will be. SL confirmed that the MHWS line is approximately at the current sea defence and so the blue (on the TJB slides) is illustrative.</p> <p>MT stated that if it is below the MHWS then it will affect the marine license content. SL agreed it will be complicated to include in licenses and monitoring. When the design is finalised, it may need to be discussed post-consent with MMO and relevant council authorities. SL confirmed that the landfall is presented and assessed in both in onshore and offshore chapters. For the purposes of PEI the saltmarsh is considered as offshore. The onshore assessment ceases at the sea defence/the edge of the landfill.</p>	
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**OFFSHORE ECOLOGY MEETING MINUTES**

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**MEETING ORGANISER:** VATTENFALL WIND POWER LTD

**ATTENDEES:** GORAN LOMAN (VATTENFALL)  
 SEAN LEAKE (GOBE CONSULTANTS)  
 TIM GOLDING (GOBE CONSULTANTS)  
 ANGIE DE BURGH (GOBE CONSULTANTS)  
 ANTHONY BROOKS (ABPMER)  
 CAROL SPARLING (SMRU)  
 SEAN SWEENEY (APEM)  
 PAUL KIRK (MMO)  
 MARGARET TIERNEY (MMO)  
 LOUISE STRAKER COX (CEFAS)  
 ROBIN MASEFIELD (CEFAS) (DIALLED IN)  
 JACKIE EGGLETON (CEFAS) (DIALLED IN)  
 STEVE WALLBRIDGE (CEFAS)  
 MARK DAVISON (ENVIRONMENT AGENCY)  
 TIM FRAYLING (NATURAL ENGLAND)  
 HARRI MORRALL (NATURAL ENGLAND)  
 TOM CLEGG (KENT AND ESSEX IFCA)

**APPOLOGIES:** VANESSA EVANS KENT WILDLIFE TRUST; FIONA RUNACRE (DOVER DISTRICT COUNCIL); IAIN HUMPHREYES (ENVIRONMENT AGENCY)

**PURPOSE OF MEETING:** EVIDENCE PLAN REVIEW PANEL KICK OFF MEETING TO DISCUSS THE TERMS OF REFERENCE, EVIDENCE PLAN PROCESS, AND INITIAL TECHNICAL DISCUSSIONS ON SCOPE AND NEXT STEP

**DATE & TIME:** TUESDAY 28<sup>TH</sup> FEBRUARY 2017 1300-1630.

**& LOCATION:** VATTENFALL UK, 1 TUDOR STREET, LONDON. EC4 Y0AH. LILLGRUND MEETING ROOM.

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Agenda item	Topic for discussion
1	Welcome and Introduction
2	Overview of the project
3	Overview of the EP process – purpose and aims, the process going forward
4	Review Panel membership
5	Review Panel breakout sessions
6	AOB

Notes & Actions	Notes	Action
1	SL provided chair role for the meeting. Round table introductions were made	n/a
2	<p>SL provided an update on the project including an update on the following key points</p> <ul style="list-style-type: none"> <li>• High level programme dates</li> <li>• PEI July 2017</li> <li>• Submission Jan 2018</li> <li>• Extension encompasses original site;</li> <li>• 34 x 8MW WTG as base case;</li> <li>• Monopiles preferred but included jackets with pin piles or suction caissons</li> </ul> <p>SL provided an overview of the 2 cable route options currently being considered; the northern route to Pegwell Bay and the southern route into Sandwich Bay. Options were maintained for scoping and a decision is currently being made following feedback from scoping and an ongoing appraisal process.</p>	n/a
3	<p>SL provided an overview of the EP process including the purpose and the aims. It is essentially a collaborative process between Vattenfall and the stakeholders to establish robust data on which the HRA will be based. JDM highlighted that this EP process is seeking to agree the data and assessments for EIA also as much of the data required for HRA will be relevant to EIA.</p> <p>The consultation undertaken as part of this process will be used to agree SoCG and ultimately this process seeks to streamline the application leaving only those items still to be agreed as a focus for the examination.</p> <p>SL highlighted that it is Vattenfall's desire to get as many issues ID'd as possible and get to the point of agreement if possible.</p> <p>The EP process should be seen as useful process to follow and a very positive process, that provides all parties with the opportunity to consider the data and evidence underpinning the assessment at an early stage and to ensure as far as is possible that there is early consensus on key issues, and the adequacy of the information being used to address those issues and concerns.</p> <p>SL emphasised that Technical Review Panels are designed to build on data and discussions previously held, they are not intended to start from scratch.</p> <p>SL discussed the project and Evidence Plan programmes and encouraged feedback both from the stakeholders providing comments on the Terms of Reference document but also in discussing the needs and next steps in the particular Review Panels.</p> <p>SL outlined that documentation to be covered within meetings will be circulated in advance of meetings to allow for review (14 days); and that the expectation is that any documentation submitted for agreement that is not to be discussed at a</p>	SL to provide ToR document and presentation with the minutes.



	<p>particular meeting should be returned with comments in line with the 21 day review cycle unless otherwise agreed.</p> <p>SL introduced the consultation log concept as provided within the ToR which will be produced for each review panel. The log is designed to track areas of agreement and outstanding queries to be resolved for each topic area that the stakeholder(s) have an interest in.</p> <p>SL finally iterated that the project would welcome confirmation that the ToR document is accurate and appropriate, and welcomed feedback on the ToR. JW@EA highlighted that the ToR did not appear to be included in information provided. SL Agreed to provide alongside the presentation as requested by MA.</p>	
4	<p>SL gave an overview of the Roles and responsibilities as outlined in the ToR document before then describing the proposed Technical Review Panels and associated membership.</p> <p>It was highlighted that the Environment Agency need to be included across multiple topic areas and a coordinated approach would be needed to ensure EA interests across both onshore and offshore are adequately represented.</p> <p>The Membership was then discussed and agreed as highlighted on Slide 28 of 29 in the attached pdf of the introductory presentation.</p>	
<b>Evidence Plan Review Break-out</b>		
<b>A. Marine Geology, Oceanography, Physical Processes</b>		
5	<p><b>Scoped in/ out issues:</b></p> <p>It was unclear in the SoS response to the scoping report whether there was agreement that transboundary issues could be scoped out. Accordingly, SL invited attendees to give their thoughts.</p> <p>There was general consensus that transboundary issues were unlikely given the size of the project and distance to potentially sensitive non-UK Marine Geology, Oceanography and Physical Processes receptors. However, it was agreed that this would be confirmed during the assessment process.</p>	
6	<p><b>Study area description:</b> [no discussion]</p>	
7	<p><b>Data and information sources:</b> AJB gave a brief overview of the project and non-project specific data sources that would be used to support the assessment. AJB stated that following initial review, the spatial and temporal coverage of these datasets were understood to be sufficient to enable robust assessment. [This will be confirmed in the Method Statement Position Paper, anticipated to be issued in March 2017.]</p>	
8	<p><b>Identification of potential impacts to be assessed.</b> In addition to the impacts identified within the scoping report, NE requested that the assessment also consider the issue of turbid wakes (which have been reported from the existing Thanet OWF.) AJB agreed that these needed to be considered although highlighted that the assessment of potential ecological impacts would be reported outside of the Marine Geology, Oceanography and Physical Processes PEIR/ES chapter. It was agreed that a Position Paper considering turbid wakes would be</p>	

	beneficial, describing the processes behind their inception. [It is anticipated this will be issued in March 2017.]	
9	<b>Key uncertainties:</b> [no discussion]	
10	<b>Mitigation and monitoring commitments:</b> [no discussion]	
<b>B. Benthic and Intertidal Ecology</b>		
11	<p><b>Scoped in/ out issues:</b> There was a few conflicts between the original scoping report and the SoS response on some of the impacts that should be scoped into the assessment with regards to benthic and intertidal ecology, the RP process hoped to clarify the reasoning behind some of these point. The following topics were discussed: -</p> <p><i>I. Changes to Water Quality.</i> SL confirmed that contaminant samples were collected during the 2016 benthic monitoring survey of the wind farm area and proposed offshore export cable corridor. It is proposed that similar contaminant sampling be undertaken throughout all monitoring stages of the project. Furthermore, SL confirmed that the intertidal survey ToR would be supplied to interested parties for review this week. Contaminant sampling will be undertaken as part of this suite of intertidal monitoring. AdB agreed that this would be in keeping with WFD assessment methodologies.</p> <p><i>II. Underwater Noise and Vibration</i> HM confirmed that Rebecca Walker from Cefas has recently published papers on the impacts from underwater noise and vibration on benthic invertebrates. AdB suggested that a position paper would be compiled on the potential impacts on benthic fauna from construction and decommissioning related activities at TEOF, to further the discussion as to whether this should be included in the assessment.</p> <p><i>III. Loss of Habitat</i> There was confusion as to why loss of habitat was included in the constriction phase of the assessment. HM confirmed that this was often needed on projects where construction spanned a long duration. As TEOF is a relatively small project it was suggested that it would be unlikely that assessment during the construction phase would be required.</p> <p><i>IV. Colonisation of Monopiles</i> NE and Cefas confirmed that this assessment was to target non-native species (<i>Didemnum vexillum</i> as a particular problem in the area). However, it was suggested that TEOF wouldn't be a new threat to encourage spreading of non-natives, as TOWF is already established in that area. There is therefore a question of if found, what actions could meaningfully or proportionately taken for TEOF, given the location of TOWF. AdB told of the difficulty in obtaining colonisation data at TOWF due to the extremely difficult tidal regime in the area of interest, that would not allow the use of ROVs (even at neap tide slack water). Diver surveys would also be difficult to undertake due to H&amp;S.</p>	<p>SL to provide intertidal survey ToR for comment/review</p> <p>AdB to produce position paper on the impacts on benthic invertebrates from construction and decommissioning related activities.</p>

	<p>V. <i>EMF</i></p> <p>PK confirmed that these impacts would only need to be considered if cables are not buried to the target depths. HM discussed that at TOWF there were cable burial issues and that TEOFW should use lessons learnt from the previous project.</p> <p><b>20/3 update – EMF will need to be considered in case cable burial is not possible to the required depth</b></p> <p>VI. <i>Transboundary Impacts</i></p> <p>It was unclear in the SoS response to the scoping report whether there was agreement that transboundary issues could be scoped out. Accordingly, SL invited attendees to give their thoughts. There was general consensus that transboundary issues were unlikely given the size of the project and distance to potentially sensitive non-UK benthic receptors.</p>	
12	<p><b>Data and information sources:</b> AdB gave a brief overview of the project and non-project specific data sources that would be used to support the assessment. AdB stated that there was an excellent understanding of the area in terms of benthic resource and that the 2016 benthic sampling programme was signed off by MMO prior to being undertaken. AdB confirmed that the benthic survey report would be circulated for review upon completion [May 2017]</p> <p>AdB highlighted her co-authorship of the peer reviewed literature on the use of repeated mapping of reefs constructed by <i>Sabellaria spinulosa</i> at TOWF. This highlights the long-term knowledge of reefs in area and demonstrates the importance of repeat mapping (which is proposed at TEOFW) to effectively map these conservation features. The paper also concluded that habitat enhancement at TOWF could be attributed to the development.</p>	AdB/SL to circulate benthic survey report for review, upon completion [May 2017]
<b>C. Marine Mammals</b>		
13	<p><b>Scoped in/ out issues:</b> CES raised queries in relation to elements of the Scoping response:</p> <p>I. <i>Physical barrier effects during construction</i></p> <p>SOS response implied concern about physical barrier in relation to vessels and infrastructure. NE clarified that this was in relation to potential barrier effects as a result of noise disturbance from piling during construction. CES confirmed that the potential for disturbance will be assessed as part of the construction noise impact assessment.</p> <p>II. <i>Operational noise</i></p> <p>Has been scoped out for some elements of the assessment (e.g. benthic ecology) but not for marine mammals due to insufficient justification presented at scoping. CES suggested that a justification note could be provided as part of the Evidence Plan process that would provide fuller justification to allow the noise produced by WTGs to be scoped out of the assessment for marine mammals. NE agreed that this could be considered but</p>	CES to produce justification note for scoping out operational turbine noise

	<p>evidence must be presented relating to the WTG types proposed for the project.</p> <p>All other scoping responses were clear and for the purposes of clarity the remaining scoped in impacts are:</p> <ul style="list-style-type: none"> <li>• <i>Construction (and decommissioning) noise – piling, vessels, seabed prep, rock dumping and cable installation</i></li> <li>• <i>Construction (and decommissioning) vessel interactions</i></li> <li>• <i>Operational vessel interactions</i></li> <li>• <i>Operational vessel noise</i></li> <li>• <i>Indirect impacts through impacts on prey species (all stages of project)</i></li> <li>• <i>Changes to water quality (construction and decommissioning)</i></li> <li>• <i>Disturbance at haul out sites during cable landfall</i></li> <li>• <i>UXO detonations</i></li> </ul> <p>Scoped out:</p> <ul style="list-style-type: none"> <li>• <i>EMF</i></li> <li>• <i>Changes to water quality (operational)</i></li> <li>• <i>Barrier effects during operation</i></li> </ul>	
14	<p><b>Data and information sources:</b> CES has yet to undertake a full assessment of the existing data for the site and surrounding area. A summary of all data sources, the analyses that have been performed on them and detail of how each is proposed to be utilised in the assessment will be prepared and presented to the TR panel.</p> <p>CES sought clarity re the reference to SCANS III data in the NE scoping response. The presumption is that a new, recent density estimate for harbour porpoises (and other cetaceans) will be available in the coming months. CES has interpreted this as NE’s advice that this density estimate should be used to predict the potential number of cetaceans affected by underwater noise. Density estimates for seal species for the site and impact footprint will be taken from Jones et al. (2013) seal usage maps. The assessment will use the IAMMWG (2013) abundance estimates as reference populations for cetaceans and data from SCOS, 2016) for reference populations for seals. NE agreed.</p>	<p>Vattenfall to provide info from UXO surveys carried out for existing Thanet windfarm</p> <p>CES to produce marine mammal data note.</p> <p>NE to confirm advice for SCANS III data inclusion</p>
	<p><b>Impact Assessment Parameters:</b> CES noted the advice from NE to consider the new draft NOAA thresholds for auditory injury in the assessment. CES asked when the SNCB position on these thresholds might be formalised. NE responded that no formal advice available yet but informally agreed that adoption of these thresholds was the way things were going.</p> <p>cSAC Harbour Porpoise HRA – it was agreed that the HRA would follow the current proposed procedures on thresholds for acceptable impact on SNS HP cSAC from JNCC and IAMMWG</p>	<p>NE to advise when formal SNCB guidance might be available on injury thresholds.</p> <p>CES to produce noise impact assessment methodology note to outline</p>

	(although noting that guidance might be under review following workshop on 27/2/2017). CES/GoBe will incorporate new guidance as it available through the IAMMWG. CES requested confirmation that only the winter area would need to be covered by HRA. NE unsure.	proposed methodology for agreement. NE to confirm whether summer area of SNS cSAC needs to be considered in the HRA.
<b>D. Fish &amp; Shellfish Ecology</b>		
<b>15</b>	<p><b>Scoped in/ out issues:</b> There was a few conflicts between the original scoping report and the SoS response on some of the impacts that should be scoped into the assessment with regards to fish and shellfish ecology, the RP process hoped to clarify the reasoning behind some of these point. The following topics were discussed: -</p> <p><i>I. Changes to Water Quality.</i></p> <p>Similar to the conversations held for benthic ecology, contaminant sediment samples will be collected across the area of interest and will be included within the assessment.</p>	
<b>16</b>	<p><b>Data and information sources:</b> AdB gave a brief overview of the project and non-project specific data sources that would be used to support the assessment. Site specific fish resource data is to be collected in both the spring and autumn across the study area, to characterise the baseline.</p> <p>The break-out group highlighted a number of other data sources that would be useful to the project, these included: -</p> <ul style="list-style-type: none"> <li>• WFD data (MD)</li> <li>• IFCA Seabass nursery data (??)</li> <li>• Herring 2016 HAWG data (LSC)</li> <li>• Thames herring survey data</li> <li>• IFCA shellfish data (e.g. cockle data and blue mussel bed data at Pegwell Bay)</li> </ul> <p>SL highlighted that within the Scoping Opinion the SoS noted reference to Marine Evidence-based Sensitivity Assessments (MarESA) available on the MARLIN website and encouraged agreement is reached on its use in the assessment as part of the evidence plan process. HM stated the NE would advise on how we can use this assessment to complement the environmental assessment.</p>	<p>AdB to collate additional fish and shellfish data as highlighted within RP meeting.</p> <p>Natural England to provide clarity on how the MarESA assessment can be used in the environmental assessment.</p>

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## OFFSHORE ECOLOGY MEETING MINUTES

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<b>MEETING ORGANISER:</b>	VATTENFALL WIND POWER LTD
<b>ATTENDEES:</b>	SEAN LEAKE (GOBE CONSULTANTS) SAMMY MULLAN (GOBE CONSULTANTS) HARRI MORRALL (NATURAL ENGLAND) CHRISTINA RELF (NATURAL ENGLAND) CLAIRE LUDGATE (NATURAL ENGLAND) (DIALLED IN) CAROL SPARLING (SMRU CONSULTING) BRYONY CHAPMAN (KENT WILDLIFE TRUST) GEORGINA EASTLEY(CEFAS) IAN HUMPHREYS (EA) PAUL KIRK (MMO) (DIALLED IN) MARK DAVISON (ENVIRONMENT AGENCY) (DIALLED IN) TOM CLEGG (KENT AND ESSEX IFCA) (DIALLED IN) HELEN FORESTER (KENT COUNTY COUNCIL) (DIALLED IN)
<b>APOLOGIES/MEMBER NOT REQUIRED FOR PARTICULAR MEETING:</b>	GORAN LOMAN (VATTENFALL) ANTHONY BROOKS (ABPMER) (NOT REQUIRED) APRIL NEWING (KENT COUNTY COUNCIL) (NOT REQUIRED) FIONA RUNACRE (DOVER DISTRICT COUNCIL) (NOT REQUIRED) HELEN JOHNSON (THANET COUNTY COUNCIL) (NOT REQUIRED) IAIN LIVINGSTON (THANET COUNTY COUNCIL) (NOT REQUIRED) TIM FRAYLING (NATURAL ENGLAND) (NOT REQUIRED) MARGARET TIERNEY (MMO) LOUISE STRAKER COX (CEFAS) ROBIN MASEFIELD (CEFAS) (NOT REQUIRED) JACKIE EGGLETON (CEFAS) STEVE WALLBRIDGE (CEFAS) (NOT REQUIRED)
<b>PURPOSE OF MEETING:</b>	EVIDENCE PLAN REVIEW PANEL KICK OFF MEETING TO DISCUSS THE PROPOSED UNDERWATER NOISE METHODOLOGY AND DATA; TO DISCUSS INTERTIDAL ISSUES AND A GENERAL PROJECT UPDATE.
<b>DATE &amp; TIME &amp; LOCATION:</b>	FRIDAY 26 <sup>TH</sup> MAY. 1000-1300 VATTENFALL UK, 1 TUDOR STREET, LONDON. EC4 YOAH. LILLGRUND MEETING ROOM.

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Agenda item	Topic for discussion	
1	Welcome and Introduction	
2	Overview of the project and update	
3	Overview of the EP process – purpose and aims, the process going forward and update	
4	Marine Noise methodology	
5	Potential Intertidal Issues	
6	AOB	
Notes & Actions	Notes	Action
1	SM provided chair role for the meeting. Round table introductions were made.	n/a
2	<p>SM provided an update on the project including an update on the following key points</p> <ul style="list-style-type: none"> <li>• High level programme dates</li> <li>• PEI Autumn 2017</li> <li>• Submission Feb 2018</li> <li>• Extension encompasses original site;</li> <li>• 8, 10 or 12 MW WTG as base case;</li> <li>• Up to 340 MW capacity</li> <li>• Project design is still on-going</li> </ul>	n/a
3	<p>SM provided an overview of the Evidence Plan (EP) process including the purpose and the aims. It is essentially a collaborative process between Vattenfall and the stakeholders to establish robust data on which the EIA and HRA will be based.</p> <p>The consultation undertaken as part of this process will be used to agree SoCG and ultimately this process seeks to streamline the application leaving only those items still to be agreed as a focus for the examination.</p> <p>SL highlighted that it is Vattenfall’s desire to get as many issues ID’d as possible and get to the point of agreement if possible. The EP process should be seen as useful process to follow and a very positive process, that provides all parties with the opportunity to consider the data and evidence underpinning the assessment at an early stage and to ensure as far as is possible that there is early consensus on key issues, and the adequacy of the information being used to address those issues and concerns.</p> <p>SL introduced the consultation log concept as provided within the ToR which will be produced for each review panel. The log is designed to track areas of agreement and outstanding queries to be resolved for each topic area that the stakeholder(s) have an interest in.</p>	n/a
4	CS (SMRUC) presented the proposed data sources, methodology and proposed assessment criteria.	SM to circulate the technical baseline once finalised.

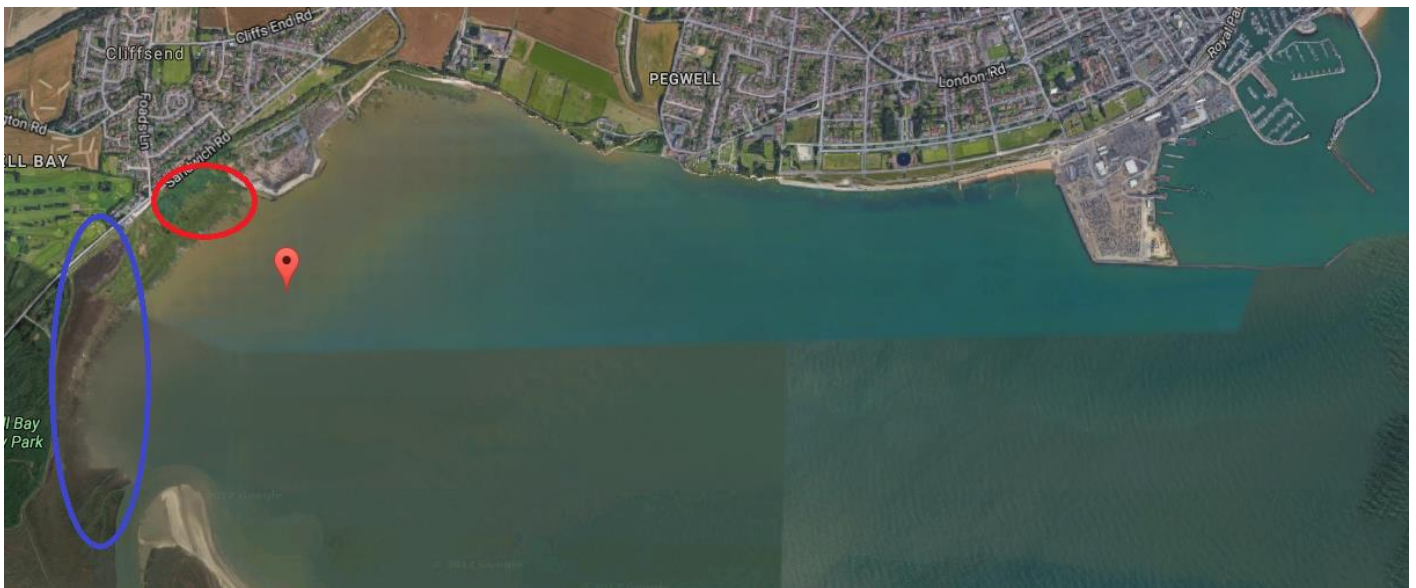
	<p>It was proposed that the main species of interest are harbour porpoise, harbour seals and grey seals and that all other species of cetacean should be scoped out. CR and others agreed this seems to be appropriate based on the surveys undertaken (both for Thanet Extensions and TOWF) and a large body of other data sources covering the project location. To be agreed on receipt of briefing note and technical baseline.</p> <p>Reference populations –          Harbour seals – SE England (including Waddenzee will also be presented for additional context), assessment will be based on SE England          Grey seals – English North Sea (including Waddenzee)</p> <p>We will assess direct injury, PTS and behavioural responses.</p> <p>Apem’s correction factor for the calculation of harbour porpoise absolute density estimates from aerial survey data was discussed. - BC requested further information of the confidence of correction and whether turbidity had been considered. It was agreed that more information about this correction factor would be circulated.</p> <p>A discussion was held around the two proposed modelling locations. These will be modelled for both pin piles and monopiles. The two locations had been selected to account for a range of water depths at the site, to capture high population densities; and for one location to be within the cSAC.</p> <p>Requested that haul-out sites in close proximity will be assessed. CS confirmed that these will be considered in the marine mammals assessment but we do not intend to undertake noise modelling in the intertidal area. Therefore, it will be a desk based assessment.</p> <p>BC raised the suggestion of modelling three locations rather than two to provide greater coverage.</p> <p>HM requested clarity on the substrate which the modelling will be undertaken for. CS confirmed it will be into the harder substrate.</p> <p>CS confirmed that currently there was uncertainty about the requirement for concurrent piling in the project design but that the modelling that would be carried out would include the ability to assess concurrent piling in order to provide the largest predicted impact range.</p> <p>CS presented that the project will assess PTS using Southall, Lucke and NOAA criteria. This approach was agreed.</p> <p>CS presented that the project will assess behavioural responses using Lucke &amp; Southall thresholds in comparison to using a dose</p>	<p>CS to write a briefing note summarising the Reference populations, data sources (including density estimates), methodology, thresholds and criteria; and population level assessment. This will then be circulated for agreement.</p> <p>Apem/CS to provide information about correction factor. This will be circulated.</p> <p>All to confirm agreement for a 5% threshold of individuals disturbed from the reference population.</p> <p>SM to circulate the list of offshore projects to be included in the cumulative impact assessment. All to confirm agreement of list.</p> <p>SM to circulate the presentation with the meetings minutes.</p>
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	<p>response approach using data derived from Thompson et al (2013) for harbour porpoise and Russell et al (2016) for seals. This approach was agreed.</p> <p>CS proposed using a threshold of 5% of the reference population affected by disturbance as a level to trigger the need for a population modelling based assessment of the long term impacts of such disturbance.</p> <p>IH - Population densities suggest a displacement in TOWF but this could be either an effect of bathymetry or presence of structures. CS stated that porpoise populations in other OWF have increased during operational phases and the potential for displacement during construction and operation will be assessed in marine mammals assessment. Cumulative impacts of other OWFs will assess displacement.</p> <p><b>Marine Noise &amp; Fish</b></p> <p>The noise modelling results will also be used to assessed the impacts of underwater noise on fish.</p> <p>A brief discussion was held with regards to the Hawkins (2014) study and wider metrics. It was agreed that the metrics should be unweighted with the Popper criteria (2014) forming the primary basis for assessment with other relevant studies taken into account for context.</p> <p>SL confirmed that the site specific fish surveys have now been completed.</p>	
5	<p>Discussed the general project status and that the project design has not yet been frozen. It was raised that in addition to Thanet Extension and Nemo that there is the potential that Vattenfall may be replacing the entire offshore export cable for TOWF. Both of these projects will be considered in-combination with Thanet Extension.</p> <p>SL and SM stated that the northern route is the preferred landfall route but no decision has been made yet. Both HDD and trenching options are currently being considered by the design engineers.</p> <p>SL, HM and IH discussed the Nemo saltmarsh mitigation plan and planned monitoring programme. Nemo will be trenched with natural recovery. IH stated that Nemo had been required to maintain natural topographical features of the saltmarsh.</p> <p><b>WFD</b></p> <p>MD stated that saltmarsh form a feature of WFD compliance and should be considered in the WFD assessment. The WFD assessment should essentially be a standalone document. The impact of sediment disturbance on bathing waters will need to</p>	<p>Thanet County Council to provide information about any proposed or existing plans for the hoverport.</p> <p>IH to provide details, and ideally data, of the cores collected from the hoverport.</p> <p>HM to check with case officer if Nemo are using cofferdams.</p> <p>HM to provide details of invasive species surveys and whether any</p>

	<p>be assessed. IH added that contamination from the hover port (if used) will need to be assessed to ensure no EQSs are exceeded.</p> <p><b>Hoverport</b> SL stated that to avoid additional trackways one option that has been thought about is using the existing hoverport. However, the stability of the structure is unknown.</p> <p>IH stated that Thanet County Council owned it but were unsure of future plans associated with it. It is a known source of contamination and could potentially have several unknown issues.</p> <p><b>Data Sources</b> SL requested information about any useful data sources of the local area which should (ideally) be used in the assessment where available and appropriate.</p> <ul style="list-style-type: none"> <li>• Broad Oak reservoir – intertidal survey in the Stour</li> <li>• MESL are undertaking the TEOFW intertidal surveys and also undertook them for Nemo</li> <li>• NE invasive species surveys</li> <li>• Christchurch Uni. Undertook saltmarsh transects in 90s to 00s. They may have also undertake invertebrate surveys.</li> <li>• Sandwich Bird Observatories – EIA team have requested,</li> <li>• ARCH project – have been assessing the change in regional habitats. William Merino at KCC may be able to provide details of the custodian of the data.</li> <li>• KWT – spartina clearance project to increase biodiversity.</li> <li>• EA – undertook juvenile fish surveys focusing on the nursery grounds in the Stour of bass and sprats.</li> </ul> <p><b>Lessons learnt from TOWF</b></p> <p>HM confirmed there were no significant or specific lessons learnt from the TOWF installation and that the saltmarsh has recovered well.</p> <p>There was issues with cable looping during installation and an underestimation of the required amount of cable protection. However, as the industry has developed these should not arise again.</p> <p>The impacts of emergency anchoring issues will be assessed in the shipping and navigation assessment.</p> <p>IH, BC and HM agreed that the saltmarsh to the south of the existing cables is more stable but has lower biodiversity to the north of the cables, see image below. Therefore, if the cable</p>	<p>further surveys have been undertaken.</p> <p>BC to provide information/report and ideally data on the spartina clearance project.</p> <p>HM to provide information about the recently undertaken coastal assessment.</p> <p>A justification of the number of cables and substations will need to be included in the project description reporting.</p>
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	<p>were to go through the south this would be less damaging and therefore a preferred approach when compared to the more diverse habitat to the north. There is also contaminated land further to the south in the former landfill at the Country Park. See approximations in the image below.</p> <p><b>Programme</b>          SL confirmed that if the project were to go ahead it would either be the summer of 2018 or 2019. This means that Thanet Extension will either be successive with Nemo or TOWF replacement.</p> <p>HM stated that Nemo have a no works restrictions from 31<sup>st</sup> October to 1<sup>st</sup> March due to overwintering birds. They have undertaken breeding birds surveys.</p> <p>MD stated that there is usually a condition on ideally no construction during the bathing season (1<sup>st</sup> May to 30<sup>th</sup> Sept).</p>	
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## OFFSHORE TECHNICAL PANEL MEETING MINUTES – 04/10/17

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<b>MEETING ORGANISER:</b>	VATTENFALL WIND POWER LTD
<b>ATTENDEES:</b>	SEAN LEAKE (GOBE CONSULTANTS) SAMMY MULLAN (GOBE CONSULTANTS) GÖRAN LOMAN (VATTENFALL) JESPER KYED LARSEN (VATTENFALL) (DIALLED IN) WILLIAM HUTCHINSON (NATURAL ENGLAND) CHRISTOPHER PATER (HISTORIC ENGLAND) IAN HUMPHERYES (ENVIRONMENT AGENCY) DAVID LAMBKIN (ABPMER) MARK DAVISON (ENVIRONMENT AGENCY) (DIALLED-IN) ANDREA HAMEL (WESSEX ARCHAEOLOGY) (DIALLED-IN) GEORGINA EASTLEY (CEFAS) (DIALLED-IN) MARGARET TIERNEY (MMO) (DIALLED-IN) CLAIRE LUDGATE (NATURAL ENGLAND) (DIALLED-IN) ALEX FAWCETT (NATURAL ENGLAND) (DIALLED-IN) TIM FRAYLING (NATURAL ENGLAND) (DIALLED-IN) ALEX SANSOM (RSPB) (DIALLED-IN) CAROL SPARLING (SMRU CONSULTING) (DIALLED-IN) SEAN SWEENEY (APEM LTD) (DIALLED-IN) ROGER BUISSON (APEM LTD) (DIALLED-IN) GARETH LEWIS (RCG) (DIALLED-IN) SIMON MARTIN (OP-EN)(DIALLED-IN)
<b>APOLOGIES/MEMBER NOT REQUIRED FOR PARTICULAR MEETING:</b>	JOANNA CLEMENTS (VATTENFALL) HELEN JAMESON (VATTENFALL) FIONA RUNACRE (DDC) LUCINDA ROACH (DDC) STUART CHURCHLEY (HE) HELEN FORSTER (KCC) BRYONY CHAPMAN (KWT) LINDSEY BOOTH-HUGGINS (MMO) HELEN JOHNSON (TDC) IAIN LIVINGSTONE (TDC) VICKI JAMES (WDC) JULIE DREW-MURPHY (RCG) EUAN MCNEIL (WESSEX ARCHAEOLOGY)

ANTHONY BROOKS (ABPMER)

REBECCA FAULNKER (CEFAS)

Agenda item	Topic for discussion	
1	Project Update	
2	Assessment Methodology	
3	Physical processes	
4	Marine Water and Sediment Quality	
5	Fish and Shellfish Ecology	
6	Benthic Ecology	
7	Marine and Coastal Archaeology	
8	Offshore Ornithology	
9	Marine Mammals	
10	SLVIA	
11	AOB	
Notes & Actions	Notes	Action
1	<p><b>Project Update</b> SL thanked all attendees for their time. SL presented the project programme - Preliminary Environmental Information Report (PEIR) submission is planned for 27<sup>th</sup> November will be submitted for consultation (S42 &amp;S47). This will be a 7-week consultation period (up until 12<sup>th</sup> January). The DCO submission is expected to be in late April 2018.</p> <p>Onshore construction to proposed to start in 2020, offshore starting in 2021 and commissioning to begin 2022. Construction durations will be available in the PEIR Project Description chapters.</p> <p>SL explained that the changes to programme since July are due to the design changes and the incorporation of an additional route being assessed in the PEIR. This additional route has been considered by the project as a direct result of consultation with KWT.</p> <p><b>Offshore</b> The offshore array red line boundary (RLB) has remained unchanged since the July Evidence Plan (EP) meetings. SL confirmed that there are ongoing discussions and consultation with PLA, MCA, and local pilotage operations outside of the EP process.</p> <p>The offshore export cable landfall is in Pegwell Bay. SL presented the 'elbow' of the offshore export cable corridor which has been included, since scoping, is to enable an offshore cable crossing of Nemo. The Thanet Cable Replacement may also require a crossing.</p> <p>CP requested that foundation dimensions will be provided in the PEIR. SL confirmed that they will be in the Offshore Project Description chapter.</p>	<p>GoBe to provide a map of the worst-case location/s of the TJB on the saltmarsh within the RLB. This will be provided in the PEIR.</p> <p>GoBe to provide a map with map/aerial photo of existing saltmarsh extent and type is presented against the landfall options.</p> <p>GoBe to provide a map of potential construction compounds and Nemo crossing in the RLB. This will be provided in the PEIR.</p>

	<p><i>Onshore</i></p> <p>SL presented the change to the onshore RLB (previously presented in July). SL presented an overview of the two different onshore cable routes being taken forwards to PEI. SL stated that all cables laid in the country park will be surface laid as a bund. The addition of the second route was to directly take into account KWT’s preference to avoid Stonelees Nature Reserve. This route is known as Option 1: Nemo crossing cable route. Option 1 has resulted in the RLB being extended to account for an onshore crossing of Nemo and now encompasses Sandwich Road.</p> <p>A high-level feasibility report has now been completed to assess constraints within Sandwich Road, which subject to the final studies indicate that whilst not optimal in engineering terms it may be feasible to install the cables in Sandwich Road. Further feasibility studies (Sandwich Road constraints and the Nemo crossing) are on-going which will be used to inform the final design, along with formal consultation on the PEI. This option would require the cables to (in profile) be aligned as a ‘square’ which is not ideal in engineering terms.</p> <p>IH expressed surprise that a chalk grassland community might be required, on the cable bunds, when the adjacent plant community would be estuarine grassland/scrub on clay/alluvium. Setting chalk on a bund are difficult and only necessary if that particular community type is needed. . SL confirmed that this is part of the detailed design but it is open to consultation. The projects current assumption is to adopt a similar approach to the Nemo cable.</p> <p>Both options will be taken forwards for formal Section 42/47 consultation.</p> <p>The Substation was originally going to be sited at Richborough Energy Park, however, this site was near the SSSI and there was limited space available which inhibited engineering designs/ options. Therefore, the Substation is proposed to be located at Richborough Port. The proposed onshore Substation location will be within DCC’s jurisdiction.</p> <p><i>TJB/proposed Landfall</i></p> <p>Pegwell Bay Country Park has been constructed on a historic landfill. It is the projects understanding that the sea defence’s primary purpose is to prevent leachate escape. Therefore, the project will need to extend the sea defence seawards to, bring the cables on land and, not to interact with the historic landfill.</p> <p>SL presented both Transition Joint Bay (TJB) options being assessed in the PEI (on the saltmarsh (Option 1) or within the country park (Option 2)). The location for Option 2 has not yet been determined and could be very close to the sea defence or further inland towards to Nemo crossing (see below). Option 1 will result in a greater loss of saltmarsh (&lt; 1% within the Sandwich Bay SAC) than Option 2. SL noted that saltmarsh is not a designated feature.</p>	
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	<p>MD asked if there was an engineering preference, such as for O&amp;M access. SL confirmed that long-term access would be required if either option were taken forwards but both are considered to be feasible.</p> <p>SL requested feedback on the TJB options in S42/S47.</p> <p>SL confirmed that post-S42 one onshore cable route will be taken forwards for assessment in the ES. The ES will have to demonstrate due regard to consultation.</p>	
2	<p><b>Assessment Methodology</b></p> <p>SM presented the general matrix which is used in the PEIR chapters and what is meant by ‘significant’ effects in EIA terms (and subsequently in the meeting). Both Major and Moderate are significant effects.</p> <p>CP requested confirmation that both negative and beneficial effects would be considered with equal merit. This was confirmed by SL with archaeological examples provides by AH.</p>	
3	<p><b>Physical Processes – DL (ABPmer)</b></p> <p>This assessment was based on pathways as oppose to receptors. Three pathways were presented (localised SSC and bed level; blockage and turbid wakes). No significant effects have been identified in the assessment.</p> <p>IH noted that Nemo had to revise their volumes for sandwave clearance. AF noted that it is important as far as possible to learn lessons from TOWF and Nemo, such cable protection remedial works.</p> <p>IH requested vessel information for cable pulling to ensure that the intertidal area isn’t damaged. SL confirmed that as part of post-consent it could be conditioned to move only at high water.</p>	<p>SM to provide the Uni of Hull paper when available in the public domain.</p>
4	<p><b>Marine Water &amp; Sediment Quality including WFD – SM (GoBe)</b></p> <p>SM presented that site specific contaminants samples have been undertaken for the intertidal area, the export cable corridor and the array as part of two survey campaigns. All of the intertidal samples were below Cefas Action Level (CAL) 1. She presented that some of the samples in the array and the export cable corridor were above CAL1. MD confirmed that PLA hold lots of data for the Thames Estuary and most samples are approximately 2-3 time the CAL1.</p> <p>The assessment determined no significant effects. The assessment was informed by the physical processes chapter.</p> <p>A standalone WFD assessment has been prepared as an Annex to the PEIR. This assessment includes potential implications on the water body from suspended sediment as a result of proposed activities for the project.</p>	

	<p>SM presented the proposed embedded mitigation including the development of a Project Environment Management and Monitoring Plan (PEMMP).</p> <p>MD confirmed that he would expect SSC to be considered in the WFD assessment. SM confirmed that this has been considered/assessed. MD also notes that compliance against EQS limits need to be considered in the WFD assessment.</p>	
<p>5</p>	<p><b>Fish and Shellfish – SM (GoBe)</b></p> <p>The assessment draws on site specific surveys which have now been completed. This assessment considered receptors (underwater noise, loss in habitat, increased SSC and effects from contaminants). The assessment determined no significant effects.</p> <p>IH confirmed that the cockle beds are currently closed but need to be considered in terms of impacts from the export cable as these provide a food source for the SPA.</p> <p>IH requested whether migratory fish and eels have been considered/assessed, SL confirmed that this was the case.</p> <p>WH enquired whether there are any spawning of areas of note. SL confirmed that there were none within the noise contour (based on the Popper <i>et al.</i> assessment) and so no seasonal restrictions are anticipated.</p> <p>Clarification over cable burial and EMF was requested by NE and GE. SL confirmed that by burying or adding protection this increased the distance to receptors as opposed to lowering EMF emittance.</p>	
<p>6</p>	<p><b>Benthic Ecology – SM &amp; SL (GoBe)</b></p> <p>The assessment draws on site specific surveys which have now been completed. This assessment considered receptors, primarily the loss and disturbance habitat. The assessment determined no significant effects.</p> <p>The proposed embedded mitigation was presented including the requirement of an ECoW and micro-siting around core reef.</p> <p>SM confirmed that other than <i>Sabellaria spinulosa</i> no other forms of biogenic reefs have been found during surveys. DM requested further information of <i>S. spinulosa</i> densities of reef formation. SL stated that a wide distribution of moderate potential for reef forming had been identified and areas of high potential in the north-east corner – this is consistent with previous surveys. SL confirmed that micro-siting around ‘core reefs’ could be undertaken. This has been discussed with NE and would be dependent on a sufficient number of surveys and consistent records of reefs present.</p> <p>IH queried whether there will be tracking of vessels. SL confirmed that local fishing vessels have been fitted with tracking devices (<a href="#">Succorfish</a>) but due to technical issues a full dataset will not be available for the PEIR but may be available by application.</p>	<p>VF to request any anecdotal evidence of mussel/reef growth on WTGs in TOWF.</p>



	<p>SL confirmed the MCZ assessment is based on the NE guidance.</p> <p>IH stated that the ECoW will need to consider cable pulling vessels.</p> <p>IH requested that Invasive Non Native Species (INNS) are considered in the RIAA, WFD and benthic ecology assessments. SL confirmed that they are covered in each of the documents. SL also confirmed that an in-principle biosecurity plan will be developed, post-PEIR which will aim to contextualise the risk of introduction of INNS based on the proposed activities, this will include Ramsgate Harbour.</p> <p>JE raised concern over how the benthic ecology may be affected by the presence of turbid wakes and how they might affect recruitment and food availability.</p>	
<p>7</p>	<p><b>Marine and Coastal Archaeology –AH (Wessex Archaeology)</b></p> <p>AH presented the key findings from the marine and coastal archaeology assessment, including analysis of the site specific surveys (see slides). A discussion was held over the use of Written Scheme of Investigation (WSI) as embedded mitigation. The WSI will not be available for PEI.</p> <p>No significant effects have been identified in the assessment.</p> <p>Two technical assessments have also been prepared – an archaeological assessment of geophysical survey data report and a Desk Based Assessment.</p> <p>AH confirmed that the previously discussed plane wreckage site has been identified as south of the River Stour and material is unlikely to be present in the OECC.</p> <p>AH highlighted that the paleogeology has been hard to assess based on its nature and so is a possible cause of uncertainty.</p> <p>CP – WSI &amp; embedded mitigation. AH – references to WSI but a full impact assessment will be included as per defined in scoping. CP effects will be subject to correct implementing of the mitigation. AH – embedded mitigation would reduce significance. SL each chapter does present embedded mitigation for each topic and a summary of embedded mitigation.</p> <p>CP requested that the determination of significance for negative and positive effects will both be presented in the PEIR. AH confirmed that both types of effects are assessed and presented. Along with the WSI, it is expected that Archaeological Exclusions Zones (AEZs) will be implemented, and are therefore included in the 'embedded mitigation' section. However, in the PEIR the significance of effects has been considered both prior to mitigation and with recommended mitigation, to highlight the importance of the implementation of appropriate mitigation..</p>	<p>AH to ensure the location of the bomber is submitted to the National Record for the Historic Environment..</p>

	<p>A discussion was held over the medieval wall. It is not thought to be in the intertidal so it will be assessed in the onshore historic environment chapter.</p> <p>CP requested confirmation that the embedded mitigation and WSI will be based on standard practices such as ROVS, Geophys, Geotech, cameras etc. AH confirmed this would be the case at a high level.</p> <p>CP requested that HE are consulted during the survey planning and scoping for any post-consent surveys.</p> <p>SL stated that the project will include an assessment of UXO clearance in EIA. UXO will be sign-posted in the PEI and will be considered in ES for a range of topics (as relevant). The assumptions will be based on TOWF and Nemo.</p> <p>An outline or draft archaeological WSI will not be included in the PEIR, but will be drafted for the DCO. It should be noted that without embedded mitigation then significant effects have been identified, please see the slides, including potential to encounter unknown historic/archaeological sites.</p>	
<p>8</p>	<p><b><i>Offshore Ornithology – presented by SS &amp; RB (Apem)</i></b></p> <p>The assessment has identified no significant effects for construction or operation for the project alone. The potential impacts are informed by local evidence.</p> <p>Red-throated Diver (RTD) have been identified as minor to moderate during O&amp;M when considered cumulatively with other projects.</p> <p>Embedded mitigation includes ensuring that the array RLB is 4 km from the Outer Thames Estuary SPA.</p> <p>Fulmar has been screened out of CRM based on surveyed density. Low risk species due to flight height.</p> <p>SL clarified that the CRM outputs that would be published in the PEI Report are based on the Masden (2015) stochastic model.</p> <p>NE and RSPB confirmed that the use of local site based data is preferable and that the flight height data could be supplemented with the ORJIP study.</p> <p>RB proposed different options for understanding Thanet Extension’s contribution to cumulative effects on RTD. This included applying a diver density distribution from a single source (rather than individual OWF ES published density data, in those cases where it is available) and applying a 4 km distance within which displacement could be predicted to occur to varying degrees . TF suggested using available data such as those for SPA designations. AS agreed this was an appropriate methodology. RB confirmed this approach could be undertaken for the ES but would not be in the PEIR.</p>	<p>JKL to request use of ORJIP study data and confirm how to reference the dataset. Apem confirmed they would be happy to sign an NDA to access the data.</p> <p>TF and AS to consider the use of SeaMaST data and relay thoughts to the project. (done – see last paragraph of NE letter dated 26/10/17)</p> <p>Project to hold an internal meeting on this subject.</p> <p>SS to organise a teleconference to continue discussion.</p>

	<p>RB relayed that conversations with JNCC recommended the use of the density data held in SeaMaST (Seabird Mapping and Sensitivity Tool) as a suitable source that overcame the patchy nature of OWF ES sources. AS confirmed that the database defaults to the data with the most certainty but this may cause data gaps.</p> <p>JKL requested confirmation that locally collected data should be used preferentially, such as where less than 4 km displacement is observed. Both TF and AS agreed that local data is useful but considered that displacement should be predicted using the standard approach that has already been advised. This is based on their view that because displacement impacts can happen over distances of greater the 4km; then, if displacement is only assessed over 4km, a standard 100% displacement over 4km should be assumed (to account for displaced birds beyond this 4km distance). Their advice was that this approach should be used at all sites during a cumulative assessment.</p> <p>SL confirmed that surveys are still on-going so more site specific data will be available for the application.</p>	
<p>9</p>	<p><b>Marine Mammals – CS (SMRU)</b></p> <p>CS presented high level findings of the assessment to date. Only Negligible and Minor effects, which are not significant, have been identified for marine mammals when the project is considered in isolation.</p> <p>CS presented the difference between the Lucke and NOAA, and how these results should be interpreted. CL agreed with the interpretation and noted that the explanation was very clear.</p> <p>Harbour porpoise are more sensitive to weighting than seals.</p> <p>CS presented the proposed embedded mitigation. The pile drive soft start has been accounted for in the acoustic modelling.</p> <p>CS explained that the PEIR will have a placeholder for UXO disposal but this will be assessed in the ES.</p> <p>CS presented a four tiered approach for the cumulative assessment based on the certainty of available information. A quantitative assessment will be undertaken for tiers 1 and 2 which will provide the number of animals disturbed at a management unite level.</p> <p>CS proposed for seismic surveys to use the previous 2-3 years as a proxy for a baseline, as information on forthcoming surveys is not available. CL agreed this was a sensible approach.</p> <p>CL agreed with the logic of the tiers presented. CS confirmed the list of all projects in each tier will be presented in the PEIR. CL suggested that Hornsea P1 should be tier 1 as piling should be completed before offshore construction starts for Thanet Extension.</p>	<p>CS to contact Karen Hall (JNCC)</p>

	<p>A discussion on how to classify the Forth and Tay OWFs was held as they have consent but are currently re-scoping. CL confirmed they should be considered as tier 2 based on the information in their consents.</p> <p>Cefas confirmed that they had no comments relating to marine mammals.</p>	
10	<p><b>SLVIA – SiM (Op-En)</b></p> <p>SiM presented the worst-case/Rochdale turbine layout and parameters considered in the SLVIA assessment. This creates a study area of 45 km of theoretical visibility. SiM confirmed that TOWF is considered in the baseline.</p> <p>SiM highlighted that the scale comparison between TOWF WTGs to the larger proposed Thanet Extension WTGs is a key factor in significance. SiM presented the photomontages of the areas of significant effects - North Kent, North-East Kent, the elevated plateau area of Thanet and Sandwich Bay.</p> <p>SiM presented the assumptions for the night time turbine lighting and a photomontage.</p> <p>SiM presented that project specific seascape mapping had been developed as the SEMP was not available.</p> <p>CP requested information about how the seascape character would be altered. AH stated that there is already quite a lot of infrastructure include OWFs so the changes are not considered to be significant. CP would like this argument detailed in the PEIR.</p> <p>SiM presented that the baseline for landscape,</p> <p>GaL requested whether Pegwell Bay had been considered in terms of landscape (flat) and saltmarsh. SiM confirmed this will be assessed in the onshore LVIA assessment.</p>	<p>MT to check with MMO planning team when the SEMP will be published and whether a draft could be shared.</p> <p>LVIA and historic environment specific meeting/telecon to be held prior to PEI submission.</p>
11	<p><b>A.O.B</b></p> <p>MT requested that O&amp;M activities are defined clearly in the PEIR. SL confirmed that the working assumptions will be presented including vessel movements and types. An O&amp;M plan will be developed for the application.</p>	

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## MARINE ECOLOGY EVIDENCE PLAN MEETING MINUTES (TELECONFERENCE) – 26/01/18

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<b>MEETING ORGANISER:</b>	VATTENFALL WIND POWER LTD
<b>ATTENDEES:</b>	SEAN LEAKE (GOBE) (SL) SAMMY MULLAN (GOBE) (SM) RYAN MCMANUS (GOBE) (RM) PHIL NEW (GOBE) (PN) DANNY PAPWORTH (GOBE) (DP) DAN BATES (VWPL) (DB) JESPER KYED LARSEN (VWPL) (JKL) WILLIAM HUTCHINSON (NATURAL ENGLAND) (WH) CHRISTINA RELF (NATURAL ENGLAND) REBECCA WALKER (NATURAL ENGLAND) (RW) RICHARD GREEN (MMO) (RG) ROB DYER (IFCA) (RD) MARK DAVISON (EA) (MD) CAROL SPARLING (SMRUC) (CS) RACHAEL PLUNKETT (SMRUC) (RP) TONY BROOKS (ABPMER) (TB) TIM MASON (SUBACOUSTECH) (TM) RICHARD BARHAM (SUBACOUSTECH) GEORGINA EASTLEY (CEFAS) (GE) REBECCA FAULKNER (CEFAS) (RF) FRANCES MYNOTT (CEFAS) (FM) JON REES (CEFAS) (JR)
<b>APOLOGIES/MEMBER NOT REQUIRED FOR PARTICULAR MEETING:</b>	IAN HUMPHREYES (EA) MARGARET TIERNEY (MMO) BRYONY CHAPMAN (KWT) HANNAH CLEMENT (KCC) HELEN FORSTER (KCC) VICKI JAMES (WDC) BENJAMIN HUGHES (IFCA)

Agenda item	Topic for discussion	
1	Welcome and Introductions	
2	Project Design Update	
3	Cumulative Impact Assessments	
4	Underwater Noise and Marine Mammals	
5	MCZ assessment	
6	Benthic Ecology	
7	Fish and Shellfish Ecology	
8	Other	
9	AOB	
Notes & Actions	Notes	Action
1	<p><b>Welcome and Introduction</b> SM thanked everyone for their time and outlined the proposed agenda for the call.</p> <p>SL confirmed that all received S42 comments will be included within the ES and will be addressed directly. As required additional clarification/explanation/justification text will be included within the ES. Addition work and broad scale amendments can also be considered.</p>	N/A
2	<p><b>Project Design Update</b> SM stated that on receipt of S42 consultation the larger landfall extension option has been dropped from the project description going forwards for the ES. Therefore, the transition joint bays will in/ on the Pegwell Bay Country Park (PBCP) as opposed to in the intertidal.</p> <p>SL provided an update that site investigation (SI) works are proposed to be undertaken to determine the feasibility of trench in the PBCP. These surveys are usually carried out post-consent but VWPL have decided to bring these surveys forward to inform their design of the landfall and onwards cable route. The ES project description will include both trenching and a surface laid berm in the PBCP.</p> <p>SM confirmed that UXO will be assessed in all relevant ES chapters.</p> <p>CR – Requested additional information and detail to justify Pegwell Bay as the most appropriate landfall option. SL confirmed that the ES chapter (Site Selection and Alternatives) will include additional information and evidence.</p> <p>DB confirmed that the expected DCO application submission date is currently expected to be June 2018.</p>	
3	<p><b>Cumulative Impact Assessments</b> Please see the table below.</p>	GoBe: Additional clarification and justification text is required to be included in the ES

		chapter and CIA assessment annex.
	<p><b>Underwater Noise &amp; Marine Mammals</b></p> <p>SL highlighted that numerous queries with regard to the underwater noise assessment had been received and therefore the project wishes to seek clarification and agreement on the next steps. SL also confirmed that UXO will be modelled for the ES.</p> <p>Subacoustech are the technical lead for the underwater noise modelling. SMRUC provided the technical response to marine mammals.</p> <p>4 CS stated that the marine mammal assessment was undertaken based on Subacoustech modelling. It is currently a rapidly changing field in terms of metrics, thresholds and assessment methods. The methodology for the assessment was discussed in May 2017 at length about the adoption of NOAA thresholds and appropriate metrics. The PEIR methodology had been proposed and agreed with NE and MMO. This methodology included a comprehensive assessment including a range of metrics for comparative purposes (Southall and NOAA) and for Thanet Extension to be comparable to previous projects.</p> <p>Please see the table below.</p>	See table.
5	<p><b>MCZ Assessment</b></p> <p>Please see the table below.</p>	See table.
6	<p><b>Benthic Ecology</b></p> <p>Please see the table below.</p>	See table.
7	<p><b>Fish and Shellfish Ecology</b></p> <p>Please see the table below.</p>	See table.
8	<p><b>Other</b></p> <p>Please see the table below.</p>	See table.
9	<p><b>AOB</b></p> <p>WH queried when the ES would be submitted. SL confirmed that the ES will be provided as part of the DCO application. The expected date is June 2018 but this will dependent on the additional design and studies required to be undertaken based on the received S42 consultation.</p>	N/A

Topic	Item/s	Stakeholder	S42 Response	Minutes
CIA	Tiering	Natural England	<p>Natural England query why for many of the chapters only three tiers are described for the cumulative assessments. It has been standard practice to consider a number of tiers for the last few years, we point TEOW towards table 1.1 in chapter 10.4 of the Norfolk Vanguard PEIR for reference where the standard six tiers are considered (in addition to this we would suggest that a further tier is included between tier 4 and 5 to consider those projects that are at the stage of submitting a PEIR). Further still, we query whether oil and gas pipelines have been considered? Maps of the cumulative projects would also be helpful to include here.</p> <p>The cumulative effects of the Thanet Cable replacement need to be considered alongside this project, or preferably as one whole project. Both projects together will certainly cause large amounts of disturbance within Pegwell Bay, over a relatively large timeframe. Natural England would welcome further discussions around the cumulative impacts of both projects and how any potential environmental damage can be reduced.</p>	<p>SM highlighted that the three tier methodology had been agreed in previous EP meetings and so requested whether the received comment superseded the previous agreement.</p> <p>WH clarified that the Vanguard PEIR had additional tiers and so additional justification for the lower number of tiers should be included within the ES EIA methodology chapter.</p> <p>Action (SL/SM): Topics with additional tiers, such as marine mammals and offshore ornithology, will also include additional clarification about timescales and assessment of tiers.</p>
Underwater Noise & Marine Mammals	Impact Ranges - avoidance ranges, SELcum should be greater than SELs discussion and ranges	MMO	<p>The MMO notes for fish that the impact ranges based on the SELcum thresholds assume a fleeing animal of 1.5 ms-1. This may explain the small impact ranges for injury based on the SELcum metric, see Table 4-15 as an example below. Sizeable Temporary Threshold Shift (TTS) zones are predicted for fish.</p>	<p>TM confirmed that the impact ranges are small. This is because the Popper threshold is high (&gt; 200 dB SEL) and so the spatial range at which these are achieved is low as they are reached quickly.</p> <p>RF confirmed that this had been suitably clarified.</p> <p>Action (TM/RB): text to be included in the ES providing additional explanation.</p>



Topic	Item/s	Stakeholder	S42 Response	Minutes
		MMO	<p>The MMO has a number of points that require further clarification regarding the modelling (Underwater Noise Technical Report Volume 4, Annex 6-3). Firstly, the propagation loss model used is an energy-based model, which is suitable for predicting the propagation of single strike criteria (SELs) but not peak sound pressure level (SPLpeak). Therefore, it is not clear how the SPLpeak is derived, or how the maps in Figures 4-3 to 4-6 are produced. This should be clarified.</p>	<p>TM explained that the model is semi-empirical and had been calibrated on data for both SEL and SPL. Therefore, the model is able to be used to predict SPL.</p> <p>RF request that additional information about the model to be included within the ES.</p> <p>Action (TM/RB): Additional text to be included in the ES about the model and to clarify it is not an energy flux model.</p>
		MMO	<p>The impact ranges are provided for multiple pulse criteria (SELcum) and single strike criteria (SELs), in addition to the SPLpeak. However, the sound exposure level (SEL) source levels are not provided. Therefore, it is not clear how the SEL received levels are derived from the propagation loss model and the SPLpeak source levels. This should be clarified and the SELs (single strike Sound Exposure Level) source level should be provided.</p>	<p>Action (TM/RB): SEL source levels will be provided in the ES.</p>
		MMO	<p>Figure 4-7 (referenced below) illustrates that the noise from pin piles contains more high frequency components than the noise from monopiles. It also shows the sound frequency spectra for monopiles and pin piles, adjusted (weighted) to account for the sensitivities of medium and high frequency cetaceans. These levels can be compared to the original unweighted frequency spectra in Figure 4-2 (shown faintly in Figure 4-7 (below for reference). However, the levels provided in the figure are SPLpeak. The peak SPL should be unweighted according to the National Marine</p>	<p>TM clarified that weighting had not been applied in the assessment for SPLpeak. The information was provided to be illustrative to demonstrate the effect of weighting.</p> <p>RF confirmed the explanation was sufficient.</p> <p>Action (TM/RB): to include clarification in the report.</p>

Topic	Item/s	Stakeholder	S42 Response	Minutes
			Fisheries Service (NMFS) (2016) criteria. Also, it is not clear whether this weighting has been used in the actual modelling, or if it has just been used for illustration purposes in Figure 4-7. This should be clarified.	
		MMO	The values in Table 4-4 and 4-5 should be clarified. For example, in some instances (as shown in the low frequency (LF) Cetaceans example in the table below), the SELss has a higher value than the SELcum. The same can also be said for mid frequency (MF) Cetaceans. However, the SELcum should be much bigger than the SELss (as is shown for Phocid Pinnipeds).	<p>TM provided an explanation as to why the SELss have a higher value than SELcum. A SELss is based on a maximum hammer energy and if the receptor is close to the noise source then there will be high exposure. Conversely, SELcum takes into account the ramp up which enables fleeing prior to the maximum hammer energy which can result in smaller ranges than SELss.</p> <p>Action (TM/RB): to provide a written explanation which can be circulated and considered.</p>
		MMO	Following on from the point 6.26. above, Table 4-8 and 4-9 also shows the SELss to be greater than the SELcum for some of the functional hearing groups. These should be checked.	
		MMO	Volume 2 Chapter 7 Marine Mammals para 7.10.55 (and Tables 7.20 – 7.21 and Figures 7.13 – 7.15): the reports state ‘applying the NOAA weighted SELss 155 dB threshold, the impact ranges are higher for pin piles compared to monopiles, despite the lower hammer energy used and the smaller diameter pin piles’. Note that the National Oceanic and Atmospheric Administration (NOAA) 155 dB thresholds (for high frequency (HF) cetaceans) is based on the SELcum, not SELss (the report uses SELss, see example Table 7.20 below). According to the NOAA criteria the peak SPL metric should be used for single strike. The peak SPL however has also been provided in these tables and this is appropriate, however the method used to derive this metric requires clarification.	<p>The threshold for NOAA SEL 155dB is specifically for sound exposure threshold and is measured over a 24hr period and not a single strike. Southall equivalent was also not specified as a single strike but had been presented as such in historic assessments. The NOAA 155 dB thresholds for the single strike metric was included in the assessment for comparison for the same sound exposure threshold as presented for Southall.</p> <p>Action (CS/RP): additional description and text to be included within the ES.</p> <p>RW confirmed that this clarification was</p>

Topic	Item/s	Stakeholder	S42 Response	Minutes
				<p>sufficient.</p> <p>CS noted that now only NOAA has been included in other projects (i.e. Southall has not been presented). Therefore, CS requested whether just NOAA should be used in the ES assessment for both injury and behaviour.</p> <p>RW - Confirmed that NE are now more comfortable with NOAA. Confirmed that Lucke should be presented for disturbance.</p> <p>Action (RW): to check internally if NOAA only is acceptable and to confirm the use of Lucke for disturbance. Post-meeting minute: NE confirmed that they were happy for the project to remove the Southall PTS assessment and just keep the NOAA PTS thresholds in the ES assessment.</p> <p>RF - Confirmed that Cefas are content with NOAA to be presented in isolation.</p> <p>CS confirmed that using only NOAA should make the assessment simpler and accessible assessment.</p>
		MMO	The above (point 7.6) can also be said for para 7.10.72 and Tables 7.26 and 7.27 (and Figures 7.23 – 7.25). The Southall threshold of 186 dB and the NOAA threshold of 185 dB for pinnipeds should be based on the SELcum, not SELss.	CS confirmed this will be updated in the ES.

Topic	Item/s	Stakeholder	S42 Response	Minutes
		MMO	In Table 7.23, the impact ranges for possible avoidance appear like they could be a bit small. These should be checked and confirmed as accurate.	CS clarified that the ranges presented are the mean not the max.  Action (CS/RP): Include the maximum and mean ranges in the tables to provide clarity in the ES.
	SELs from 'instantaneous PTS' discussion	MMO	Volume 2 Chapter 7 Marine Mammals para 7.10.55 (and Tables 7.20 – 7.21 and Figures 7.13 – 7.15): the reports state 'applying the NOAA weighted SELs 155 dB threshold, the impact ranges are higher for pin piles compared to monopiles, despite the lower hammer energy used and the smaller diameter pin piles'. Note that the National Oceanic and Atmospheric Administration (NOAA) 155 dB thresholds (for high frequency (HF) cetaceans) is based on the SELcum, not SELs (the report uses SELs, see example Table 7.20 below). According to the NOAA criteria the peak SPL metric should be used for single strike. The peak SPL however has also been provided in these tables and this is appropriate, however the method used to derive this metric requires clarification.	Please see above.
	NOAA criteria - TTS	MMO	Sections 7.10.80 – 7.10.83 and Table 7.29: Again, the Southall SEL threshold of 171 dB should be based on the SELcum not the SELs. Furthermore, Table 7.29 shows the estimated impact range for TTS/fleeing for seals based on the 171 dB threshold. The impact ranges are small, presumably because TTS is being used as a proxy for the onset of fleeing, which likely underestimates the risk. Since TTS and fleeing are not the same thing, the report should be clear here what impact is being addressed. Noted that on page 89 of the Marine Mammals – Piling Noise Impact Assessment (Volume 4, Annex 7-2) however, that this point	CS confirmed that 171dB has a behavioural impact and doesn't indicate TTS as an impact and proposed that an empirical assessment would be more appropriate. CA highlighted that TTS is not defined as an injury under JNCC guidance (EPS licensing) and is not considering it as a metric of behaviour. CS questioned the benefit of included TTS to the assessment as there is insufficient literature on how to determine the significance on individuals and so populations. It is likely that TTS is over-estimated and is hard to quantify.

Topic	Item/s	Stakeholder	S42 Response	Minutes
			<p>is somewhat acknowledged:            'The use of an exposure level that elicits TTS, as frequently done for seals, and in some cases also adopted for other species, is not considered appropriate by the report. TTS is a physiological change in the hearing abilities of an animal, not a behavioural reaction. While Southall et al. (2007) acknowledge that one could use the TTS-threshold as a compromise for the evaluation of single pulse sound sources, they expect that significant behavioural effects are commonly elicited at lower sound levels for multiple pulses. It has to be considered that pile driving is a multiple pulse event.'</p>	<p>Therefore, CS requested justification for inclusion from Cefas.</p> <p>RF - Highlighted that in Cefas's option TTS is considered as injury and that previous assessments have differentiated TTS from a behavioural response.</p> <p>CS confirmed that it can be presented but is difficult to assess meaningfully/ in a competent way.</p>
		MMO	<p>Following on from point 7.9 above, the MMO notes that TTS has not been assessed in accordance with the NOAA criteria. The MMO recommend that TTS is considered in the assessment, using the NOAA noise exposure criteria.</p>	<p>CS raised concern in presenting TTS as the ranges presented historically have been based on animal response to a single strike. CS is unaware of any projects including TTS cumulative (over 24 hours) since NOAA has been adopted. To present this might result in misunderstanding/ misconceptions of behavioural responses and the significance on the animal.</p> <p>RW - Stated that repeated TTS can lead to PTS so had been included historically. However, it is a good juncture to review what the thresholds mean and what it means in EIA terms. She confirmed this is being considered on another project currently.</p> <p>Action (SMRUC, NE, Cefas): call to be scheduled to discuss further by 9th February 2018.</p>

Topic	Item/s	Stakeholder	S42 Response	Minutes
	TTS/Fleeing - disturbance and dose curve	Natural England	Natural England understands why this threshold (TTS/Fleeing) has been used for seals. However, given the results of the Russell paper which showed seals disturbed up to 25km away, Natural England believes that the text should more strongly reflect the fact that disturbance is likely to occur at much lower levels (and greater distances) than the TTS/Fleeing threshold allows.	<p>To be agreed and clarified in a conference call (see above).</p> <p>Russel paper - SMRUC have been undertaking work into this paper over the last six weeks. The findings of this work show that the data presented in the paper can't be interpreted in the same way as a dose curve. That conclusion of disturbance of 25 km isn't what the analysis of the paper shows. The dose response curves have been re-analysed since the PEIR to create a new dose curve which result in a lower impact. CS noted that the impacts in the PEI are therefore conservative and no new impacts would be identified by applying the new dose response curve.</p> <p>Action: CS produce non-technical note on the dose response curve changes including justification of why the new dose curve is more appropriate and how the paper has over-estimated the response. This note will be circulated to EP. (Post-meeting minute – the paper was circulated by SM on 31/01/18 via email).</p> <p>RW - Agreed in principle that the approach sounded reasonable. She enquired whether the note can be shared more widely so as not to be project specific? Action: CS to confirm with</p>

Topic	Item/s	Stakeholder	S42 Response	Minutes
		MMO	<p>Sections 7.10.80 – 7.10.83 and Table 7.29: Again, the Southall SEL threshold of 171 dB should be based on the SELcum not the SELss. Furthermore, Table 7.29 shows the estimated impact range for TTS/fleeing for seals based on the 171 dB threshold. The impact ranges are small, presumably because TTS is being used as a proxy for the onset of fleeing, which likely underestimates the risk. Since TTS and fleeing are not the same thing, the report should be clear here what impact is being addressed. Noted that on page 89 of the Marine Mammals – Piling Noise Impact Assessment (Volume 4, Annex 7-2) however, that this point is somewhat acknowledged:</p> <p>‘The use of an exposure level that elicits TTS, as frequently done for seals, and in some cases also adopted for other species, is not considered appropriate by the report. TTS is a physiological change in the hearing abilities of an animal, not a behavioural reaction. While Southall et al. (2007) acknowledge that one could use the TTS-threshold as a compromise for the evaluation of single pulse sound sources, they expect that significant behavioural effects are commonly elicited at lower sound levels for multiple pulses. It has to be considered that pile driving is a multiple pulse event.’</p>	<p>Debbie and Gordon as it will need amendment and will check if it can be circulated more widely.</p> <p>See above.</p>
	Data - SCANSIII, MU, highlighting variation both	Natural England	Clarification is required as to why the grey seal MUs to be assessed includes the Scottish east coast MU. Other wind farms further north are not using this MU in their assessments.	This had previously been agreed in EP meetings as there is some connectivity between the two MUs.

Topic	Item/s	Stakeholder	S42 Response	Minutes
	spatially and temporally			Action (CS/RP): Update ES assessment with the English MU only.
		Natural England	As per the previous point, these paragraphs should note that despite the noted uncertainties in the data, the areas that subsequently became cSACs for harbour porpoise were formed of high confidence data. The text requires amendment to reflect this. In addition, it is also important to note that harbour porpoise density varies significantly in space and time as evidenced by Thanet’s own results (0 – 4.3 porpoise per km <sup>2</sup> ), the higher Thanet density of 4.3 porpoise per km <sup>2</sup> being above that predicted by the Heinänen and Skov model.	Action (CS/RP): Amend the text in the ES assessment.
		Natural England	Natural England query whether there are further data sets regarding turbidity within the Thames Estuary in relation to confidence in the assumption that porpoise can be detected in the top two meters of water. What do the developers propose if the assumption cannot be met? Further still, we do not believe the SCANS III summer estimate should be chosen as the most robust abundance assessment until the remaining nine months of aerial survey data is available for review.	CS confirmed that turbidity measurements weren't taken during the surveys but visibility has been estimated between 5.5m (summer) to 1.1 m (spring/ autumn). The photographs taken confirming there were not high levels of turbidity and so Apem are confident that a 2 m correction factor is appropriate. CS confirmed that the ES will include additional survey data to increase the temporal resolution. RP confirmed that the density averages between the survey data and the SCANSIII dataset are very similar for the study area. Post-meeting note: RW highlighted that the SCANSIII survey was undertaken in the summer and that the data for the cSAC showed the broad area for Thanet is important in the winter.
	Surveys	Natural England	Natural England query whether there are further data sets regarding turbidity within the Thames Estuary in relation to confidence in the assumption that porpoise can be detected in the top two meters of water. What do the developers propose if the assumption cannot be met? Further still, we do not believe the SCANS III summer estimate should be chosen as the most robust abundance assessment until the remaining nine months of aerial survey data is available for review.	Action (CS/RP): Contextualise data in the baseline and the assessment.



Topic	Item/s	Stakeholder	S42 Response	Minutes
				<p>RW confirmed that all data sources should be analysed before an average density is applied, however, confirmed that the methodology and explanation was acceptable.</p> <p>MD highlighted that pre-dredge survey water quality suspended solids data for the London Gateway Port development may be available (would need to contact Rachel Haylock Jones at DP World to see if any of their data is share-able). However, MD noted that much of the focus may be too close in in the Thames estuary to be of complete relevance.</p> <p>Post meeting note – MD provided turbidity data from the Outer Thames to RP (30/01/17), noting that these data were collected inshore.</p> <p>JR highlighted the Cefas ss (satellite) data set which will provide surface ss concentrations.</p> <p>TB noted that the Cefas dataset has been included within the physical processes chapter for Thanet Extension.</p> <p>Action (CS/RP/SM): To assess the Cefas dataset.</p>

Topic	Item/s	Stakeholder	S42 Response	Minutes
	Cumulative effect and mitigation clarification	KWT	<p>It is outlined in Section 7.13.1 that "the overall contribution of Thanet Extension to this overall effect will be low, therefore no project specific mitigation is proposed". The assessment conclusion on harbour porpoise is moderate. Therefore, no matter the size of the contribution of Thanet Extension, mitigation must be considered.</p>	<p>CS clarified that mitigation applied the cumulative impact will not change the EIA conclusion as the baseline is considered as 'Moderate'. Thanet Extension will make a relatively very small / negligible impact but there might be a legal requirement to mitigate.</p> <p>SL confirmed that the RIAA will be submitted to the review panel, ahead of the application, which will consider mitigation in the relation to the SAC. As the project alone is minor it is arguable that applying mitigation could be disproportionate and not effective as the impact cannot be reduced below moderate.</p> <p>Action (CS/RP): Text to be clarified in the ES.</p> <p>RW notes the points made but does not feel the need for mitigation can be pre-judged without RIAA being completed.</p>
		Natural England	<p>Cumulative assessment – While Natural England agrees with the principle of placing wind farms at different stages of the process into tiers, we believe that all the wind farms that have the potential to overlap with Thanet should be assessed together i.e. potential disturbance from Tiers 1 and 2 (and 3 and 4 if more information becomes available) should be assessed at the same time and not split into different sections. A Moderate adverse effect is concluded for porpoise, but no further mitigation is to be considered. Natural England suggest this decision is premature without</p>	<p>CS agreed with the comment and stated that the assessment intended to build throughout the tiers, i.e. tier 1 projects are assessed alone whereas tier 2 projects are assessed in-combination with tier 1 projects.</p> <p>Action (CS/RP): To clarify the cumulative assessment text within the ES.</p>

Topic	Item/s	Stakeholder	S42 Response	Minutes
			the HRA being completed. Discussions on potential mitigation will be required once the HRA is complete.	Action (SL): To review the general and topic specific cumulative assessment text for clarity.
			Please can some clarification be provided as to why out of 198 sightings, 163 sightings (82%) were of insufficient quality to identify to species level.	CS clarified that the photographs were of submerged animals and they were probably porpoises but they could not be identified with certainty. Therefore, a precautionary approach could be to include as porpoises but this might underestimate dolphins (which are rare at the site).
			What was the coverage of the area that was analysed? i.e. how many photos were taken, what is the potential to have missed animals in between photos being taken? Were all the photos analysed?	RW agreed but highlighted that additional text should be added into the chapter.  Action (CS/RP): to include additional text on the survey (coverage, standardised distances) and identification (100% of photographs) methodology employed.  Post-meeting query: RW requested additional information to be provided on the average resolution of the photos and the percentage of usable data. This query is with the survey company and a response will be provided accordingly.
MCZ	inclusion of rMCZ	Natural England, MMO and KWT	Numerous	SL highlighted that numerous stakeholders highlighted the inclusion of Goodwin Sands rMCZ within the ES. However, there is a lack of certainty if it will be brought forwards and the conservation objectives for the site. These points were acknowledged by Natural England and the

Topic	Item/s	Stakeholder	S42 Response	Minutes
				<p>MMO.</p> <p>SL presented the proposed approach of investigating the potential designation information and to ensure that all habitats are considered (if not already). Therefore, the features of conservation interest will be assessed but the rMCZ would not be considered in the MCZ assessment.</p> <p>CR highlighted the risk to the project if the site were to be brought forwards. SL highlighted it would be very difficult to assess meaningfully without the management measures and conservation objectives. CR stated that other developers have assessed rMCZs by looking at MCZs with similar features and how those features might be affected to the project and their sensitivity. SL acknowledged the suggestion but highlighted that the pressures should be considered on a site by site basis. CR noted the limited data but felt a general assessment of the attributes and pressures could be undertaken. RF agreed it would be harder without objectives but where MCZs have similar features they could be used as a proxy in order to future proof the project. RG confirmed that consultation for rMCZ will be undertaken in the first half of 2018 but can't provide any further information.</p>

Topic	Item/s	Stakeholder	S42 Response	Minutes
				SL stated that we would consider the sensitivity and the habitats but would not want to draw pressures from other sites.
Benthic Ecology	Loss of saltmarsh habitat	Multiple (EA, MMO, Natural England, etc.)	Numerous	Action (SM/SL): provide a project update when the landfall design for the EIA is finalised. Action (SM/SL): circulate the saltmarsh management plan (following design freeze).
	The disturbance caused by construction vehicles upon other protected sites and species within the vicinity of the landfall proposal.	Natural England	The disturbance caused by construction vehicles upon other protected sites and species within the vicinity of the landfall proposal.	WH confirmed the comment was regarding vehicles on the saltmarsh. SL confirmed that vehicle numbers would be considered in the PD.
	Inter-tidal surveys	Natural England	A Phase 1 intertidal habitat survey is mentioned in 5.4.5 and states the scope was agreed in the evidence plan meetings. The only surveys we can see are in vol4 annex 5-1 and it doesn't seem to go into detail about saltmarsh quality?	Action (PN): Ensure clarification is included in the benthic chapter.  SL highlighted that the survey scope had been circulated and agreed through the Evidence Plan process. No samples were taken in the saltmarsh.  WH highlighted that there is an old file note from a meeting concerning TOWF and the original cable landfall options. The note describes how saltmarsh at the PBCP is probably the highest quality in the bay. WH suggested that the quality of saltmarsh needs to be investigated further.

Topic	Item/s	Stakeholder	S42 Response	Minutes
				<p>SL highlighted that this is conflicting with the discussion about the quality of saltmarsh was held in the May EP meeting in which the Environment Agency, KWT and Natural England identified the proposed landfall as less diverse saltmarsh. Post-meeting minute: the May EP meeting minutes were re-circulated with the final minutes of this meeting.</p>
	<p>Characterisation of chalk reef</p>	<p>MMO</p>	<p>The chalk reef assessment undertaken in the characterisation report (Volume 2 Chapter 14 Inter-relationships) is not appropriate for bedrock such as chalk reef. The classifications used by Irving and Limpenny relate to cobble/stony reef. None of the criteria used to assess 'reefiness' are appropriate for chalk reef. The video images indicate that chalk bedrock is present, therefore the MMO considers no further assessment is required.</p>	<p>SL suggested that in addition it could be cross-referenced against the chalk reef definition (see the MCZ assessment).</p> <p>Action (WH): to confirm if there is any further guidance/ definitions relating to chalk reef and comparing different reef structures. Post meeting minute: WH sent an email (06/02/18) assess the chalk habitat using this "reefiness" assessment is not appropriate for chalk bedrock. Subtidal chalk needs to be recognised as a BAP habitat but will be outside of any designated sites. NE advised avoidance of the burial of cables in chalk habitat.</p> <p>RG highlighted that a national level definition of chalk reef would be unlikely to be available in the project timescales but a temporary/ project specific definition could be developed.</p> <p>Post-meeting minute: MT provided a clarification email (05/02/18) "the 'reefiness' assessment</p>
		<p>Natural England</p>	<p>NE do not feel the references used are appropriate for chalk reef, as they were designed for stony reef in the first instance. At Navitus for example, the Wildlife Trust challenged the use of the Irving paper as they felt it was inappropriate to use for bed rock reef. It may be more appropriate to use the MCZ chalk reef definition.</p>	

Topic	Item/s	Stakeholder	S42 Response	Minutes
				undertaken for determining whether the chalk reef observed in videos can be classified as reef is not appropriate for assessing chalk bedrock. Subtidal chalk is a UK BAP habitat (see attached document) and designated feature of the Thanet Coast MCZ and therefore needs to be identified as being present. The MMO will defer to Natural England, as the appropriate statutory nature conservation body for MCZs, on the type and extent of the assessment of chalk reef to be presented for the MCZ assessment; whether it is purely on a presence/absence basis or whether the location and extent of the chalk reef needs to be established. Mitigation measures may be required, e.g. avoidance/ micrositing around exposed chalk reef features to minimise the impact to the feature.”
	Further surveys	Natural England	The video images presented in Figure 5.1 are poor and the use of a sonar camera may be more appropriate for capturing images of Sabellaria here. Further/ better work needs to be carried under discussion with NE.	SL requested confirmation that the suggested surveys are required post-consent not to characterise the baseline for the purposes of EIA. WH confirmed that the response was to ensure that a different methodology was utilised for pre-construction to ensure better quality images for micro-siting and avoiding core reef.
Fish & Shellfish Ecology	Herring and sandeel spawning/nursery areas and mitigation	Natural England	Herring and sandeel spawning/nursery areas: As above at point 5 we query whether mitigation options could be considered out of best practice to avoid impacts to these vulnerable species and their habitats of importance.	SL noted the responses were helpful. For the ES, SL proposed to use the sediment type data and present the data as habitat maps for herring and sandeel.
		MMO	Volume 2 Chapter 6, para 6.7.8 and 6.7.9 summarise the spring and autumn surveys and the fish species found	SL confirmed that the project will propose

Topic	Item/s	Stakeholder	S42 Response	Minutes
			<p>especially in abundance. However, these surveys are only a snapshot in time and the MMO recommends the results of the surveys should therefore be used with caution. For example, the surveys were undertaken outside the herring spawning periods: the spring survey was undertaken in May and the Thames substock spawns February to April; the autumn survey was undertaken in early November and the Southern North Sea substock spawns end of November to January.</p>	<p>mitigation prior to the application and may wish to consider best practice following the creation of the maps. A seasonal restriction will be considered after the generation of the map.</p> <p>GE and WH agreed that the approach sounded reasonable and had no outstanding concerns.</p>
Other	PEMP	Natural England	<p>Embedded mitigation: We advise that an initial draft PEMP should be provided at time of submission of the application.</p>	<p>SL sought to clarify the rationale for the request of the PEMP as it is typically a specific document which is often updated throughout the construction and operational phases. SL questioned whether such a high level document would be meaningful.</p> <p>RG highlighted that other OWFs had provided a PEMP post-consent which highlights key areas of agreement and disagreement, monitoring, key species etc. with the detail to be provided at a later date.</p> <p>SL highlighted that key sensitivities will be captured in separate reports such as Sabellaria. The EP (report) will capture areas of agreement and disagreement.</p> <p>RG raised concern that the DML will not contain detail and it will be hard to ensure compliance of monitoring.</p>



Topic	Item/s	Stakeholder	S42 Response	Minutes
				<p>WH agreed that a high-level document to reduce future confusion for monitoring would be useful.</p> <p>Action (WH): to confirm the expectation/ level of detail required for the PEMP. Post-meeting minute: Emails between Natural and England and GoBe have been exchanged (06/02/18). The project have prepared a briefing note outlining the position and this will be circulated to the panel for agreement.</p>
	potential for changes in seabed substrate in the footprint of the turbid wakes	MMO	Regarding Volume 2, Chapter 2 In para 2.11.74, long term sediment winnowing by the virtually continuous suspended sediment plumes will be a slow process but is potentially significant. Detail on where and when the MES Ltd 2013 sediment samples were taken should be provided along with any estimates that can be made of the rate of winnowing to determine when (and if) a significant change in particle size can be measured.	<p>TB highlighted that this effect is theoretical and there is no evidence from the TOWF monitoring data, which was not designed to target turbid wakes.</p> <p>Action (TB): Map the MES data and consider the winnowing effect in the ES.</p> <p>TB noted that mapping the data was unlikely to provide evidence of the effect. JR requested that the worst case of winnowing is considered.</p>
	Propose separate call for core reef approach	MMO	Embedded mitigation for Annex I habitats has been included in the project design. Further details are required regarding the assessment of 'core reef' areas, as these appear to be the only areas where the Project is proposing to avoid.	<p>WH highlighted that if the datasets were appropriate then a core reef approach could be adopted but the greater the number of datasets the better. PN highlighted there will be a minimum of two surveys within the study area and a greater amount in some locations. Regional datasets may also be included to provide information/ evidence.</p>
		Natural England	We also welcome discussions around the core reef approach and are keen to discuss this further, however its use and determination of core reef value will depend on the available data for the area. In the absence of agreeing a core	

Topic	Item/s	Stakeholder	S42 Response	Minutes
			reef approach a pre-construction survey will be required to determine whether there are any habitats of conservation importance that require micro-siting.	Action (PN/SL): Document to be circulated to the EP as to why the project feels the use of a core reef and micro-siting infrastructure is appropriate. The note will compare the datasets and identify areas where reef is consistently identified and detail the proposed datasets.

Who	Action	Status
GoBe	Additional clarification and justification text is required to be included in the ES chapter and CIA assessment annex.	To be completed prior to application
SM/SL	Topics with additional tiers, such as marine mammals and offshore ornithology, will also include additional clarification about timescales and assessment of tiers.	To be completed prior to application
TM/RB	Text to be included in the ES providing additional explanation for the underwater noise modelling.	Circulated with the final minutes – 27/02/18
TM/RB	SEL source levels will be provided in the ES.	To be completed prior to application
TM/RB	To provide a written explanation which can be circulated and considered with regard to SELs having a higher value than SELcum.	To be provided to the EP panel.
RW	To check internally if NOAA only is acceptable.	Completed - see post-meeting note. (email 07/02/18).
RW	To confirm whether the use of Lucke is still required for disturbance.	Disturbance discussions are on-going.
RP/CS	Include the maximum and mean ranges in the tables to provide clarity in the ES.	To be completed prior to application
SMRUC, Natural England and Cefas	call to be scheduled to discuss further by 9th February 2018.	A telecon was held on 13/02/18. Cefas provided a position paper ahead of the call and a response will be provided in due course.
CS	To produce non-technical note on the dose response curve changes including justification of why the new dose curve is more appropriate and how the paper has over-estimated the response. This note will be circulated to EP.	Completed - SM circulated the paper on 31/01/18.
RP/CS	Update ES assessment with the English MU only.	To be completed prior to application
RP/CS	Amend the text in the ES assessment with regard to data confidence	To be completed prior to application
RP/CS	Contextualise data in the baseline and the assessment.	To be completed prior to application
MD	To locate EA turbidity data in the Outer Thames from WFD fieldwork.	Data provided to RP on 30/01/18.

CS/RP/SM	To assess the Cefas dataset.	The dataset has been download and analysis to be completed prior to application.
CS/RP/SM	Additional text to in included in the ES to clarify the cumulative effect and mitigation as discussed.	To be completed prior to application
CS/RP	To clarify the cumulative assessment text within the ES.	To be completed prior to application
SL	To review the general and topic specific cumulative assessment text for clarity.	To be completed prior to application
CS/RP	To include additional text on the survey (coverage, standardised distances) and identification (100% of photographs) methodology employed.	To be completed prior to application
Apem	To provide additional text on the resolution of the photos and the % of usable data within the ES chapter.	This query is with the survey company and a response will be provided accordingly.
SM/SL	To provide a project update when the landfall design for the EIA is finalised.	Following ES design freeze.
SM	To circulate the saltmarsh management plan to the panel for review.	Following ES design freeze.
PN	To include clarification in the benthic ecology chapter than the intertidal habitat surveys did not sample the saltmarsh and that the scope had been previously agreed by the EP technical panel.	To be completed prior to application
WH	To confirm the expectation/ level of detail required for the PEMP.	Emails between Natural and England and GoBe have been exchanged (06/02/18). Clarification briefing note to be circulated to panel for agreement.
TB	Map the MES data and consider the winnowing effect in the ES.	To be completed prior to application
PN/SL	Document to be circulated to the EP as to why the project feels the use of a core reef and micro-siting infrastructure is appropriate. The note will compare the datasets and identify areas where reef is consistently identified and detail the proposed datasets.	Outstanding

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**NATURAL ENGLAND MEETING MINUTES – 17<sup>TH</sup> MAY 2018**

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**MEETING ORGANISER:** NATURAL ENGLAND

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**DATE** 17<sup>TH</sup> MAY 2018 (TELECONFERENCE)

**ATTENDEES:** SEAN LEAKE (GOBE CONSULTANTS)  
SAMMY MULLAN (GOBE CONSULTANTS)  
DAN BATES (VATTENFALL)  
DUNCAN WATSON (SLR CONSULTING)  
WILL HUTCHINSON (NATURAL ENGLAND)  
CHRISTINA RELF (NATURAL ENGLAND)  
ALEX FAWCETT (NATURAL ENGLAND)

**APOLOGIES/MEMBER NOT REQUIRED FOR PARTICULAR MEETING:** N/A

Agenda item	Topic for discussion	
1	Project Update	
2	Survey Update – Ecological Surveys and SI works	
3	Saltmarsh Communities	
4	Assessment of alternatives	
5	RIAA	
6	Outline LEMP	
7	MCZ assessment	
8	Cable Burial	
9	<i>Sabellaria Spinulosa</i>	
9	AOB	
Notes & Actions	Notes	Action
1	<p><i>Project Update</i></p> <p>SL described the EP progress since S42.</p> <p>The red line boundary of the array has been reduced which has numerous benefits including being further from the Outer Thames Estuary SPA, Shipping and Navigation and SLVIA.</p> <p>An offshore cable exclusion area has been introduced. No permanent infrastructure is to be installed in the area and so Thanet MCZ. The exclusion zone is a buffer around the Ramsgate Harbour wall to consider S42 responses.</p> <p>Three landfall options are being taken forward to application – extension of the seawall (smallest option assessed in PEIR) (Option 2), HDD from the Country Park into the intertidal (SI dependent) (Option 1) and trench through the seawall (SI dependent) (Option 3). Cofferdams would be installed for the duration of the construction at the landfall. The worst-case option for each technical topic has been determined and assessed in the ES.</p> <p>The RIAA will be updated and submitted with the application on receipt of consultation comments from the EP panel.</p> <p>Application is anticipated to be at the end of June. The application includes a Saltmarsh Monitoring and Reinstatement Plan and the outline LEMP.</p> <p>Further discussion on saltmarsh habitation, in relation to the SSSI, with NE post-application would be appreciated prior to developing SoCG.</p> <p>WH – Requested documents to be submitted with NE at the same time as PINS. SL confirmed that the application logistics were being looked into at the moment and we'd make a note that NE would like the information in parallel if possible. USBs are to be provided to NE with the application documents as per PEIR.</p>	<p><b>GoBe to provide a figure of the cable exclusion area prior to application showing the local MCZs and SACs.</b></p>

	<p>The option to cross Nemo (onshore) has not been taken forwards and will not be considered in the ES.</p>	
<p>2</p>	<p><i>Ecological Surveys – presented by DW</i></p> <p>As discussed in February, the project agreed to undertake some limited additional surveys to provide further evidence for the application.</p> <p>The intention was to undertake GCN surveys to ensure all potentially suitable ponds within 250 m of the RLB were surveyed. Two were unable to be surveyed in 2017. eDNA survey has been undertaken in St Augustine’s Golf Course waterbody earlier in May. However, the project has not been granted a survey permit for the National Nature Reserve (NNR) and so the survey of the pond in the country park has not been undertaken. DW’s judgement is that this pond would be very unlikely to support GCN. DW requested NE’s agreement that this is a low risk and that a letter of no impediment would be possible. WH – a NE colleague agreed that the risk of GCN being present was very low and a licence was not required. NE suggest that a survey for the pond should be undertaken pre-construction. WH acknowledged that access had not been granted and confirmed that the available data is adequate for the EIA.</p> <p>Bat surveys have been completed in May. Trees within the Bay Point Sports Club (BPSC) with moderate potential have had a dawn and dusk survey undertaken – no roosts have been identified. A new access into the BPSC is now included within the RLB which will require the removal of 2-3 semi-mature trees. These trees have low/negligible roost potential. There is a bat box present on one of these trees and this has been checked and there was no evidence of bat usage.</p> <p>An activity transect survey has been completed and static bat detectors have been deployed for 2 weeks (May 2018) at BPSC, to provide spring activity survey data.</p> <p>An activity survey in the NNR has not been undertaken due to lack of access. DW relayed that these data would not affect the findings of the ES. DW noted that activity data is not an EPS licensing issue.</p> <p>WH agreed that the approach taken to the bat surveys sounded reasonable.</p> <p>Invertebrate surveys will be undertaken pre-construction as previously agreed. The project would like to consider undertaking these in summer 2018 but this will be access dependent.</p> <p>WH requested an update on the survey access. DB explained that a steering group meeting was held (2<sup>nd</sup> May) and the outcome was that access would not be provided until such a time that they felt that the Site Selection and Alternatives (SS&amp;A) process was suitably robust. DB highlighted in the meeting that the SI works have been brought forwards because of consultation. As this is an NSIP the project could use the powers provided to us to gain access – this was highlighted at the meeting. A</p>	<p><b>To include additional survey reports in the ES.</b></p>

	<p>voluntary agreement is considered to be unlikely at this stage. SL noted that the surveys were requested by NE and KCC.</p> <p><i>SI works – presented by SL</i></p> <p>These were primarily requested by KCC but these surveys cannot be undertaken without the KWT permit, despite being a landowner. KCC at a previous meeting (17<sup>th</sup> April) suggested their understanding the permit was for ecological surveys however this opinion is not shared with KWT.</p> <p>Workshops and a walkover are suggested with the stakeholders to ensure that the SI works meet the needs of the stakeholders. The project’s preference is to bury infrastructure if this is determined to be practicable (and appropriate from a contaminant pathways perspective).</p> <p>The project are taking forward the three landfall options to application as is commonplace.</p> <p>NE’s note that the option selection is dependent on the SI work data and this is so being considered a priority.</p>	
	<p><i>Saltmarsh communities</i></p> <p>During EP meetings (May 2017) it has been suggested that the higher quality saltmarsh habitats are located further north in the bay.</p> <p>WH would welcome an agreed saltmarsh mitigation plan. CR has been to site and Nemo’s recovery is ongoing.</p> <p>A detailed Saltmarsh Monitoring and Reinstatement Plan regarding temporary impacts has been developed and includes mitigation options (if required), such as re-seeding. There is unlikely to be time to update this document pre-application but could be updated post-application during the SoCG process with NE.</p> <p>The permanent loss of saltmarsh is a fraction of a percent, and we would be happy to draft a document through discussion with NE prior to examination regarding appropriate measures to mitigate the loss of habitat. SL would like to understand NE’s thoughts and preferences.</p> <p>From an SPA designation, the nature of the saltmarsh habitat isn’t considered to be functional for the qualifying bird species. We note that the saltmarsh is important however in terms of the SSSI. DW noted the differences between the upper and lower (below MHWS) in terms of habitat suitability for golden plover. DW would not consider the upper saltmarsh to be suitable for roosting given the density and height of the vegetation and so not a functional habitat for the qualifying species.</p> <p>AF highlighted a ruling which is going through the courts. The case (Sweetman 3) involves an SPA for Hen harrier. It pertains to whether there is a loss of potential habitat (if it were to be managed differently in the future) (See action). DW highlighted that most hen harrier sites are usually under rotational management and so that it may not be directly relevant</p>	<p><b>AF to provide a link to the advocate general ruling – completed during the call. ACTION COMPLETE</b></p> <p><b>To arrange a call to discuss the potential ruling and SSSI - mid -June? To provide dates with the minutes.</b></p>



	<p>to Thanet Extension. AF noted that the arguments (as to why this habitat is unlikely to become potential habitat for Golden Plover due to the high position on the shore) should be drawn out.</p> <p>CR noted that Ramsar species should also be considered.</p>	
	<p><i>Assessment of Alternatives</i></p> <p>We will be providing further information in response to NE’s S42 consultation. Additional narrative and further supporting information will be provided in and accompany the site selection chapter. The chapter will also include the recent design changes – cable exclusion area.</p> <p>WH noted that evidence behind the rationale behind the route selection should be included. CR noted that the sensitivity evidence is important and not just the number of interactions. SL noted that it did read as over-simplified in PEIR and so this has been expanded accordingly. The underlying habitats inclusive of priority habitats and the associated sensitivity and uncertainty are now presented in the ES chapter to provide the information that consultees have requested.</p>	
	<p><i>RIAA</i></p> <p>AF - NE are working through the Sweetman 2 ruling and the advice is that all effects that have been screened out due to mitigation should now be included in an Appropriate Assessment (AA). For example, the seasonal restrictions for intertidal birds should now be included in the AA rather than being screened-out.</p> <p>SL noted that embedded mitigation will be secured in the DCO. For standard requirements, such as pollution management, which are embedded as legislative. AF noted that mandatory requirements would still be required even if European sites weren’t present and so is a grey area.</p> <p>DW noted that the Sweetman 2 ruling is consistent with how the Regs are applied in Scotland. DW and AF do not expect the conclusions of the RIAA to change. DW notes that given the current programme it would be very difficult to amend the document prior to print. DB highlighted that VF have been taking legal advice on this and what updates should be made post-application. AF notes that NE advice will mirror that above and notes it is a project decision to be made.</p> <p>SL asked if the screening report is valid or if the ruling is being applied retrospectively. AF stated that the screening report is now out of date but wasn’t at the time of writing so would not need updates, but comments to be provided on the RIAA identify the need to move some mitigation measures to the AA stage.</p>	
	<p><i>Outline Landscape and Ecological Management Plan (LEMP) – presented by DW</i></p>	<p><b>NE to consider availability to discuss the LEMP</b></p>

	<p>It is unlikely that an Outline LEMP will be provided for review prior to application due to lack of time. A bi-lateral meeting was held with KCC in April (17<sup>th</sup>) to seek views on principles to be included in the OLEMP but these have not been provided to date.</p> <p>The detailed LEMP will be subject to a requirement and agreement. An Outline LEMP will be submitted with the application as a precursor to the detailed LEMP and will include principles and options.</p> <p>CR notes that the outline plan will be useful to inform the discussions with LEMP. WH requested that the OLEMP is provided as soon as possible and is open to the idea of providing comments post submission but prior to examination (subject to staff availability).</p>	<p><b>further prior to examination/ post-application.</b></p>
	<p><i>MCZ assessment – presented by SL</i></p> <p>The MCZ assessment has been re-drafted to consider S42 responses. There will be no cables (or protection) installed within the Thanet MCZ.</p> <p>No conservation objections are available for Goodwin Sands. The features and distribution of habitats have been assessed in the MCZ assessment.</p> <p>CR agrees that the methodology seems broadly acceptable.</p>	
	<p><i>Cable burial - presented by SL</i></p> <p>We have assessed three methods of cable burial and the use of cable protection. The engineering team have provided further justification for the requirement of cable protection and this has been included in the ES.</p> <p>There will be no cable protection in the intertidal area or in European sites.</p> <p>AF would like to ensure that the assessment is realistic (on the basis of TOWF). It would be useful to understand the types habitats where protection might be required. Nemo have had to use cable protection in Goodwin Sands so could result this could result in cumulative issues.</p> <p>AF notes that it is hard to determine the impacts on designated sites. So, it would be best to apply a worst case in designated sites, such as Goodwin Sands.</p> <p>CR - It is expected that the next tranche of MCZs will be consulted on with Defra in summer 2018 and could become a material concern if taken forwards.</p> <p>The site-specific data does suggest chalk is covered in a veneer of sand. There is a risk of chalk being present in the wider cable corridor and this is presented in the ES as such (see the benthic ecology chapter and MCZ assessment). AF noted that subtidal chalk is a S41 habitat – doesn't need to be a reef or elevated to be considered as such. SL noted that elevation had been considered in terms of establishing whether the chalk would be exposed subtidal chalk.</p>	<p><b>SL to check that cable protection is presented as helpful as possible in the MCZ assessment.</b></p>

	<p>NE have held an internal workshop on classifying subtidal chalk and a paper may be made available in summer 2018.</p>	
	<p><i>Sabellaria Spinulosa</i></p> <p>An Outline Biogenic reef will be provided with the application. This is based on a core reef approach and will be updated/finalised following pre-construction baseline surveys.</p> <p>The project are confident that given the amount of surveys undertaken, that there is substantive data, including publications and literature, available which can inform the presence of core reef.</p> <p>AF notes that project specific discussions need to be held before agreement can be reached on the application of a core reef approach.</p> <p>The plan presents the spatial scale of the survey data but the survey reports aren't included as annexes in the application. SL sought preference on the provision of the reports or whether the status of the reports is suitable. AF agreed a table and maps would be suitable in principle.</p> <p>AF noted it the number and the overlap of surveys, and the indexes applied that would need to be considered. The project has tried to be as consistent with the approach applied in The Wash, but slightly different indexes have been applied.</p> <p>CR notes it would be useful to understand the implications on the Goodwin Sands rMCZ.</p>	
	<p><i>AOB</i></p> <p>WH notes that any documents which can be provided earlier would be beneficial. SL noted that the saltmarsh and biogenic reef plans may be available prior to application.</p>	

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## MEETING AGENDA

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**MEETING ORGANISER:** VATTENFALL WIND POWER LTD

**ATTENDEES:** HELEN JAMESON (VATTENFALL) HJ  
 GORAN LOMAN (VATTENFALL) GL  
 JESPER KYED LARSEN (VATTENFALL) TELECON JKL  
 JULIE DREW-MURPHY (RCG) JDM  
 HARRI MORRALL (NATURAL ENGLAND) HM TELECON  
 TIM FRAYLING (NATURAL ENGLAND) TF TELECON  
 ALEX SANSOM (RSPB) AS  
 SEAN SWEENEY (APEM) SS  
 STEPH MCGOVERN (APEM) SM  
 PAOLO PIZZOLLA (RHDHV) PP  
 MURRAY GRANT (RHDHV) MG  
 TOM CARPEN (PINS) TC TELECON  
 RICHARD KENT (PINS) RK TELECON  
 KJ JOHANSSON (PINS) KJJ TELECON

**PURPOSE OF MEETING:** TO DISCUSS THE STRATEGY FOR ORNITHOLOGY SURVEYS, DATA COLLECTION & ANALYSIS, AND CONSENT APPLICATION

**DATE & TIME & LOCATION:** FRIDAY 9<sup>TH</sup> DECEMBER 2016 1100 - 1430.  
 ROYAL HASKONING DHV, MARLBOROUGH HOUSE, MARLBOROUGH CRESCENT, NEWCASTLE UPON TYNE, NE1 4EE  
 LUNCH WILL BE PROVIDED

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Agenda item	Topic for discussion	
1	Welcome and Introduction	
2	Latest project update (HJ)	
3	Overview of the strategy document to be provided by the Authors	
4	Discussion on strategy to consent application	
5	Agreement on way forward	
6	Summary of actions	
7	AOB	
ID	Notes	Action
1	Round table of introductions	
2	HJ provided an update on the status of the project. Scoping will be based on 40 turbine locations but eventual site will be 34 locations, feedback being sought through scoping.	

	<p>Site located a few km outside of the Outer Thames SPA. RTD are the key species of interest.</p> <p>Internal governance decision to take the project forward, so scoping will be taken forward and the project will be made public in January.</p> <p>TF questioned the purpose of this meeting</p> <p>HJ outlined that there had been discussions previously about approach to EIA and characterisation. This meeting is the 1<sup>st</sup> topic group meeting for Ornithology as part of the Evidence Plan process.</p>	
3	<p>MG provided an overview of the strategy document and the reasons for not collecting a full 2 yrs worth of data.</p> <p>Surveys will extend to September 2017, previous discussions based on surveys up to November 2017 but surveys to Sept only possible given the submission date of January 2018.</p> <p>There will be a 12 month review process, whereby a report will be produced following the initial 12 months of survey.</p> <p>The strategy document provides a review of data and in particular the RTD. The last wintering period will not be covered with surveys finishing in Sept 2017. Worth noting that this would not be covered even if a full 24 months of data were collected. There is however a substantial amount of data across a large no of years which show consistency of distribution and density and believe this is a rigorous dataset to be able to characterise and assess impacts relating to the extension site and a good basis for checking the new data collected. HJ highlighted that there is precedent of using less than 2 full years worth of data which is highlighted in the report.</p>	
4	<p>TF stated that table 3 within the report highlights the large amount of data available but questioned how the data will be used</p> <p>MG stated there were a number of ways to approach this. There is distribution data that covers parts or all of the site from which simple visual assessment could be carried out or a more sophisticated approach of statistical modelling could be looked at. The O'Brien Paper used to aid the delineation of the SPA could also be used.</p> <p>TF responded that based on this paper that Natural England advice still stands and that a minimum of 2 full years of site specific data is the preferred approach to enable characterisation of the site and highlighted that RTD are not the only receptors that will need assessment as part of the EIA, cumulative collision risk with kittiwake and gannet also should be considered.</p> <p>Projects that have used less than 2 yrs of data would still have been advised by NE to use 2 full yrs of data but they accept that some historical data could be used.</p> <p>A potential risk exists to Vattenfall if they do less than 2 yrs survey. According to NE interactive mapping tool there could be elevated numbers of gannet and GBBG in the extension project during the non-breeding season.</p> <p>MG stated that it would be good, in this context, to understand why two full winters worth of effort is needed if we can demonstrate that the historical data can be used.</p> <p>AS agreed with NE that 2 full years of data is the better option and its all about providing certainty, the more data, the more certainty</p>	

	<p>and reiterated that there is a risk with providing less than this. TF suggested that they could make a judgement after 12 months with the inclusion of other historic data but suggested that surveys are continued for 24 months so the data are available if needed. HJ stated that no decision is going to be reached today. Vattenfall will provide a 12 month report for discussion, HJ questioned whether there was anything specific that should be included within the report.</p> <p>AS suggested that it should present a way forward on how the data could be used, building a robust model and looking at between year variation include the boat based data.</p> <p>SS provided an overview of the data collected to date. March to September data are following a standard pattern for this site looking at the construction and post construction data for Thanet, low numbers of birds of all species were observed. The most numerous were small and large gull mostly within the buffer. There were low number of RTD in March all within the buffer for the new site. Data seems to correlate with previous data with no surprises. MG – the existing data could potentially provide a better baseline. TF suggested it would be good to link the data with habitats, this should be started now as experience has shown that incorporating historical data can prove tricky it would be good to understand how the data will be incorporated, it would be difficult to comment further until this can be seen.</p> <p>HJ suggested that Vattenfall would be open to collecting the full 24 months of data but the submission date is fixed so they would have to submit further data as post consent data or SEI. We want to try and get to a position where we are comfortable that the data up to Sept are suitable to characterise the site for EIA.</p> <p>PP made the point that the risk should be put in context with the likelihood of the project will have a significant impact, as there is general agreement that the area is not particularly special for birds - it is outside the SPA for a reason.</p> <p>TF confirmed its not high risk in terms of ornithological value, there is a process risk of having unnecessary arguments on certainty due to less data. NE were happy to hear a commitment to collect 2 years data if required. They require to know how the data will be used to provide certainty and looking at inter-annual variation.</p> <p>NE suggested looking at the 12-month report and see from there but reiterated starting to process the historic data now.</p> <p>AS suggested that if modelling is to be undertaken then we could model this winter to see if it matches the actual, this would then give us better certainty. Caution was expressed with using the data as at a broad scale it may be fine but at a site level there could be patchiness. The data should be used in a way that's relevant to the site.</p> <p>JKL stressed that we have low numbers of RTD in the area so there could be difficulties with modelling, it is known that it is not a preferred diver area.</p> <p>Potential to look at habitat and distribution pattern over 5 ½ winters to show use.</p> <p>It's a catch 22 situation – if not enough detections likely to have large confidence intervals but if there are low estimates is there</p>	<p><b>Vattenfall to provide a detailed 12 month report to also include how the historical data will be used.</b></p>
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	<p>really a problem?</p> <p>AS stated that what they need to ascertain is certainty that there will always be low counts, that the help demonstrate and give confidence in distribution and density trends.</p> <p>TF agrees that the main focus should be RTD but should also consider the other receptors particularly from a collision perspective.</p> <p>SS stated that in their experience of other Southern North Sea sites, bird numbers at this site are very low. Only 20-40 birds observed in total for the whole site.</p> <p>It was again reiterated that it would be good to know what will be done with the data. Review after 12 months but NE advice stands.</p> <p>JKL stated that with regard to seabird collision risk Vattenfall may have access to site specific Avoidance Rates, which should help reduce uncertainty. Delivery of the ORJIP BCA study at Thanet currently expected mid-2017.</p> <p>HJ stated that Vattenfall will work to the assumption that ORJIP data will not be available.</p>	
<p><b>4 cont...</b></p>	<p>There followed a discussion about how supplementary information might be provided into the Examination after it has commenced, risk that SEI may be considered new information and therefore require consultation.</p> <p>RK stated that PINs will shortly be providing some formal Section 51 advice regarding the risk of non-acceptance.</p> <p>JDM suggested that if ORJIP data became available during the examination that NE and/or RSPB would likely want to see these data considered as part of the examination, so the data could therefore be considered at the request of a consultee.</p> <p>PINS would consider the impact of new information on interested parties and whether new data would effect the project design. RK also stated that the inclusion of new information is at the discretion of the Examining Authority.</p> <p>PP provided an example whereby informal consultation of new/additional data had been carried out in parallel with the Examination prior to it being submitted into the Examination, therefore all interested parties had been given an opportunity to comment on it. JDM and RK both indicated that this had also been done for another project so appeared to be an acceptable approach.</p> <p>RK then highlighted that caution should be exercised in terminology to be used with regards to new information presented to the Examination. “further information” has a specific formal meaning under the EIA regs and pauses the consideration of material until this is provided “other information” is also defined as is “supplementary information”</p> <p>TF with regard to the collision risk modelling, would be great to use the ORJIP data, but would like to understand further the plan for collision risk modelling, including how flight heights will be derived.</p> <p>SS stated that flight height data will be available from the aerial surveys but as there are limited number of birds there may not be enough data to use in the model.</p> <p>SM stated that they would look to use the site specific data first but if not possible they would then look at wider published datasets,</p>	<p><b>PINs to provide Section 51 advice</b></p>

	<p>the model and report would be clear on what data have been used. ORJIP data could be fed in if available. If there are not many birds in flight on the site then it would not be possible to use the site specific data as this would result in large confidence intervals. TF enquired if methods and which data sets will be used is set out the scoping? PP stated it is not in the scoping but will be discussed and agreed as part of the Evidence Plan process in the course of developing the EIA. MD asked what NE would like to see from the modelling. TF suggested that the Masden CRM model is a good step forward from the Band model in helping to address uncertainty but does require some quite detailed parameters on WTGs but should be considered.</p>	
5	<p>Vattenfall to start processing the historical data now</p> <p>Have another meeting once initial work has been conducted to present to NE and RSPB JDM suggested using the next topic group meeting as part of the Evidence Plan process amend timing of meeting to February</p>	<p><b>Vattenfall to start analysis historical data and developing methods for its use</b></p> <p><b>Arrange further meeting once initial feedback is available Amend EP meeting date in January to accommodate this.</b></p>



**THANET EXTENSION OFFSHORE WIND FARM (TEOWF)  
REVIEW GROUP MEETING - OFFSHORE ORNITHOLOGY**

**ORGANISER:** VATTENFALL WIND POWER LTD

**ATTENDEES:** TIM FRAYLING, NATURAL ENGLAND (TM)  
TIM GOLDING, GOBE (TG)  
GORAN LOMAN, VATTENFALL (GL)  
ALEX SANSOM, RSPB (AS)  
SEAN SWEENEY, APEM (SS)  
ROGER BUISSON, APEM (RB)

**APPOLOGIES:** HARRI MORRALL (HM), NATURAL ENGLAND (IN OTHER BREAKOUT SESSION) AND JESPER KYED LARSEN (JL), VATTENFALL

**PURPOSE OF MEETING:** EVIDENCE PLAN OFFSHORE ORNITHOLOGY REVIEW GROUP TO DISCUSS SCOPING OPINION

**DATE & TIME:** TUESDAY 28<sup>TH</sup> FEBRUARY 2017, 12.30—14.00

**LOCATION:** VATTENFALL UK, 1 TUDOR STREET, LONDON

<b>Agenda item</b>	<b>Topic for discussion</b>	
<b>1</b>	Welcome and introduction	
<b>2</b>	Responses from RSPB	
<b>3</b>	Responses from Natural England	
<b>4</b>	Other comments from SoS	
<b>5</b>	Other issues	
<b>6</b>	Upcoming meetings	
<b>7</b>	AoB	
<b>Notes &amp; Actions</b>	<b>Notes</b>	<b>Action</b>
<b>1</b>	<b>Welcome and Introduction</b>	
<b>2</b>	<b>Responses from RSPB</b>	
<b>2.1</b>	AS informed that RSPB have not issued a separate opinion to the scoping report, but RSPB agree with the responses sent by Natural England.	
<b>3</b>	<b>The responses from Natural England</b>	
<b>3.1</b>	<b>Baseline Data Collection / Survey Coverage</b> TF reiterated Natural England's preference for data to be collected in March & April 2017. TF underlined the importance to have a full winter period covered in the first annual period, including data	

	<p>from March 2017.</p> <p>SS &amp; GL confirmed that APEM will continue to undertake aerial digital surveys for a further 12 months – to complete a full 24 month period for data collection.</p> <p>SS confirmed plan to issue Annual Report with three months of boat based data (January-March 2016) and 12 months aerial digital data (March 2016 - February 2017). This will be made available to Natural England &amp; RSPB at the earliest opportunity.</p> <p>SS confirmed plan to use 13 months (so data from Annual Report plus March 2017 data) for the Baseline Technical Report for the PEIR and all subsequent EIA work for the PEIR. TF agreed that this would be welcomed by Natural England for the PEIR.</p> <p>SS confirmed that for the Environmental Statement an additional six months of aerial digital data (April – September 2017) will be available (i.e. Pre-DCO submission 19 months of aerial digital data will be available). Post-DCO submission a final report will be issued, including the months October 2017 – February 2018 (completing a full 24 month period of aerial digital data collection).</p> <p>TF advised that two years of baseline survey data is the standard minimum requirement. In this project, NE will consider DCO submission of 19 months of aerial survey data if there is a clear strategy on how to use historical data appropriately (see 3.2).</p>	
<p><b>3.2</b></p>	<p><b>Historical Data</b></p> <p>TF acknowledged that there are a number of other sources of existing data for the wider Outer Thames Estuary SPA and specifically the pre-, during and post-construction surveys for Thanet Offshore Wind Farm (TOWF). If the intention is to use these data sets to inform the baseline (thereby negating the need for 24 months of aerial digital survey data) Natural England requests a clear description as to how these data are to be incorporated before they can decide whether they consider the baseline data to have been informed sufficiently.</p>	<p>TEOWF to describe how the historic data will be used.</p>
<p><b>3.3</b></p>	<p><b>Collision Risk Modelling (CRM)</b></p> <p>TF confirmed that the most appropriate model to use for CRM is the latest one released by Masden for estimating potential bird collisions. TF confirmed that they have not received data from this latest model with regards to a Development Application to date – this project is likely to be the first.</p> <p>TF also outlined the basics of a contract Natural England have to test the new Masden model and of a Marine Scotland project that is related to developing the application of the model. Both of these studies will provide an update to the current Masden model and the work is to be completed before the end of the financial year.</p> <p>SS informed the group that CRM work is planned for early April (as</p>	<p>TF to follow up when the updated version is available or details of what the implications are for new CRM.</p> <p>SS to look at programme to see</p>

	<p>it relies on final PDS), so any new or updated Masden model would need to be received by then.</p> <p>TF requested that flight height data from the ORJIP Bird Collision Avoidance study should be used, if available. GL confirmed that Vattenfall will pass these data on to APEM.</p>	<p>latest date new CRM model can be used for PEIR.</p> <p>GL to issue ORJIP data to APEM.</p>
<b>3.4</b>	<p><b>Bio-seasons and Displacement</b></p> <p>It was agreed by all that the Furness definitions of non-breeding season are the most appropriate – supplemented where possible with site-specific data on breeding season timing.</p> <p>It was agreed by all that the latest SNCB guidance note on displacement would be used in the assessment process.</p>	
<b>4</b>	<b>Other comments from SoS</b>	
<b>4.1</b>	<p><b>Displacement and Barrier Effect</b></p> <p>In SoS Scoping opinion (section 3.84) concerns were raised regarding barrier effects during construction. The meeting assumed this was a mistake and should be referred as displacement.</p>	TEOWF to ask SoS for clarification
<b>4.2</b>	<p><b>Inter-array Cables</b></p> <p>In respect of the inter-array cables, the SoS did not agree that disturbance and displacement effects during operation can be scoped out at this stage.</p> <p>TF confirmed that an assessment of the cable laying operations should be undertaken for potential disturbance and displacement of red-throated divers.</p>	
<b>5</b>	<b>Other Issues</b>	
<b>5.1</b>	<p><b>Marine Conservation Zones</b></p> <p>SS asked for clarification that all MCZs within close proximity to the TEOWF site did not contain bird features.</p> <p>TF confirmed that he believed no birds form part of the MCZs planned in the TEOWF area, but that Richard Caldow and Alex Banks were leading on this at Natural England.</p>	TF to check with HM
<b>5.2</b>	<p><b>EIA Generic Approach</b></p> <p>TF confirmed that Natural England has no specific comments to the generic approach of the EIA methods proposed in the Scoping Report.</p>	
<b>5.3</b>	<p><b>Apportioning Unidentified Birds for Abundance Estimates</b></p> <p>SS raised this point and TF agreed that apportionment of unidentified birds into individual species abundance estimates should follow the previously agreed methods applied to data for East Anglia THREE (EA3).</p>	
<b>5.4</b>	<b>Correction Factor for Diving Auks</b>	

	SS raised this point and TF agreed that the use of the 'Method C' correction factor to account for availability bias in guillemot and razorbills (due to a proportion of auks being submerged below the sea surface at the point an image is collected) would be appropriate – as a previously agreed method applied to auk data for EA3.	
<b>5.5</b>	<b>Transboundary Assessment</b> The Review Group would like to get advice from the Steering Group on how to assess transboundary issues.	TG / GL to raise in Steering Group
<b>5.6</b>	<b>Cumulative Impact Assessment</b> Cumulative impact assessments should cover the potential impact from existing projects and assets. TF agreed that the base for CIA would be projects included in the EA3 assessment, with any suitable amendments as appropriate with regards to revised OWF specifications.	TF to check with NE's case officer on EA3 on relevant projects to assess for the cumulative impact.
<b>6</b>	<b>Coming Meetings</b>	
<b>6.1</b>	Next meeting / teleconference is planned for the end of March / early April, to discuss the Annual report findings and any Masden CRM model updates (if available). Date will be decided later by SS and TF, GL to send invitation.  The next Topic Group meeting (likely to be a face-to-face meeting in London) is planned for June 13 <sup>th</sup> , GL to send out invitation.	SS and TF to decide date for March/April meeting.  GL to send invite to the meetings.
<b>6.2</b>	Future invitations should also be sent to HM (Natural England) and JL (Vattenfall).	
<b>7</b>	<b>AoB</b>	

**THANET EXTENSION OFFSHORE WIND FARM (TEOWF)  
REVIEW GROUP MEETING - OFFSHORE ORNITHOLOGY**

**ORGANISER:** VATTENFALL WIND POWER LTD

**ATTENDEES:** TIM FRAYLING, NATURAL ENGLAND (TF)  
TIM GOLDING, GOBE (TG)  
JESPER LARSON, VATTENFALL (JL)  
ALEX SANSOM, RSPB (AS)  
SEAN SWEENEY, APEM (SS)  
ROGER BUISSON, APEM (RB)

**APPOLOGIES:** HARRI MORRALL (HM), NATURAL ENGLAND AND GORAN LOMAN (GL), VATTENFALL

**PURPOSE OF MEETING:** EVIDENCE PLAN OFFSHORE ORNITHOLOGY REVIEW GROUP  
TO DISCUSS ANNUAL REPORT RESULTS & PEIR / HRA SCREENING APPROACH

**DATE & TIME:** THURSDAY 20<sup>TH</sup> APRIL, 13.30—15.30

**LOCATION:** TELECONFERENCE

<b>Agenda item</b>	<b>Topic for discussion</b>	
<b>1</b>	Welcome and introduction	
<b>2</b>	Annual Report – Year 1 Aerial Digital Surveys (& 3 months boat-based surveys)	
<b>3</b>	Data to be used in PEIR	
<b>4</b>	Final Cumulative / In-combination CRM and Displacement assessments in EA Three	
<b>5</b>	Update on NE contract to review Masden CRM model	
<b>6</b>	Update on ORJIP data and use of flight heights	
<b>7</b>	Approach to high level HRA Screening Report	
<b>8</b>	Other issues	
<b>9</b>	Next Meeting	
<b>10</b>	AoB	
<b>Notes &amp; Actions</b>	<b>Notes</b>	<b>Action</b>
<b>1</b>	<b>Welcome and Introduction</b>	
<b>2</b>	<p><b>Annual Report – Year 1 Aerial Digital Surveys (&amp; 3 months boat-based surveys)</b> SS ran through draft Annual Report and explained why appendices were not available (due to large file size). Overall, as expected from historic data collected at TOWF, no seabird species were recorded in significant abundances / densities in the TEOWF or 4 km Buffer areas surveyed in the boat-based and aerial digital</p>	<p>TG – to set up Sharepoint file for APEM that SNCBs can access.</p>

	<p>methods (including red-throated diver, gannet, fulmar, kittiwake, common gull, herring gull, great black-backed gull, lesser black-backed gull, razorbill and guillemot.</p> <p>SS explained that Final Annual Report with all appendices would be uploaded onto Sharepoint system, once set up by GoBe.</p>	
<b>3</b>	<b>PEIR Baseline Technical Report</b>	
<b>3.1</b>	<p><b>Focal Species in the PEIR Baseline Technical Report</b></p> <p>SS also explained that those species recorded only once in the TEOWF or 4 km buffer sites would not be detailed in the Baseline Technical Report. TF agreed with this in principle, though requested that this be revisited for the final reporting and assessments which will include additional data at the ES Chapter stage.</p>	
<b>3.2</b>	<p><b>Apportioning Unidentified Birds for Abundance Estimates</b></p> <p>SS discussed the process again that apportionment of unidentified birds into individual species abundance estimates has followed the previously agreed methods applied to data for East Anglia THREE (EA3), which TF agreed with. SS stated that the method would be included in the PEIR Baseline Technical Report.</p>	N/A
<b>3.3</b>	<p><b>Correction Factor for Diving Auks</b></p> <p>SS raised this point again and TF agreed that the use of the 'Method C' correction factor to account for availability bias in guillemot and razorbills would be appropriate – as a previously agreed method applied to auk data for EA3. However, TF also requested that rather than refer back to the EA3 project an outline of the method used should be included in the PEIR Baseline Technical Report.</p>	APEM to include method statement in PEIR Baseline Technical Report.
<b>3.4</b>	<p><b>Data use for PEIR</b></p> <p>TF asked what data would be used in the PEIR and ES Chapter. SS replied (with reference back to previous ETG) that the PEIR would include 3 months boat-based data (Jan to Mar 2016) and 13 months of aerial digital data (Mar 16 to Mar 17). For the ES Chapter the plan was also the same as previously explained, with additional aerial digital survey data to be included from Apr to Sept 17 to make it an overall period of 21 months of continuous coverage (Jan 16 to Sept 17) from both survey platforms.</p> <p>TF also asked if data collection would continue beyond Sept 17. SS confirmed (with reference back to the previous ETG) that APEM were contracted to continue data collection up to and including Mar 18.</p> <p>TF asked whether and how historic data were being used in the assessments for the PEIR and ES Chapter. SS replied by explaining that these historic data sets were included in the desk study to inform the baseline technical report for the PEIR. Further use of historic data sets would be discussed after the PEIR submission, if required to provide additional evidence for offshore ornithology baseline.</p>	

4	<p><b>CIA CRM and Displacement for EA3</b>  TF provided CIA and In-combination reports for seabird species assessed through the examination process of the EA3 development application and the final ‘agreed’ rates of mortality. Subject to review and revision for new projects these would be expected to be the start point for future assessments.</p> <p>TF re-iterated that the use of the SNCB Displacement Guidance should be used in the assessment process. With regards to the use of specific displacement/mortality rates for the assessment process, TF explained that NE assessed on the full range of the matrix of displacement and mortality values for auks – if these scenarios are below 1% level of baseline mortality then no requirement for additional PVA modelling. TF also stated that NE do not accept outputs from PBR models in EIA and HRA population modelling. AS - The RSPB agree that PBR should not be used.</p> <p>SS raised point about Scottish projects that had consents removed in 2016, as these projects (Inch Cape, Firth of Forth and NnG) contribute over half the total impact on most seabird species. AS explained that all three projects are currently appealing the decisions and so could yet be awarded consent again. They are also currently re-submitting Scoping Reports.</p> <p>NE position explained by TF as being where a project can provide evidence of limited potential impacts as an individual project and its contribution is minimal or is unlikely to make a material difference to the overall cumulative or in-combination totals then it is unlikely to result in an adverse effect of integrity on any SPA populations</p>	<p>AS to check on status of the 3 Scottish project appeals and TF to find out where they may sit on the tiered approach CIA and In-Comb tables for this PEIR.</p>
5	<p><b>NE Contract on Masden CRM model</b>  TF provided information on progress being made by lead contractor on Masden CRM model. They are due to receive a draft by end of April.</p> <p>SS raised a number of queries with TF on the use of the Masden CRM model and the assumptions made in the guidance examples – such as lack of information provide on the most appropriate data sources for standard deviation for a number of biometrics required to be input in the model. TF to pass on comments to their contractor and if draft available in June will brief TEOWF team in June meeting.</p> <p>TF stated that CRM project contracted by Marine Scotland on the Masden CRM model has yet to commence. TF advised that given the contract to test the Masden model let by NE has not reported, and there is another project about to be commissioned by Marine Scotland CRM should be based on Band. SS said that the Project intended to use the Masden model only to carry out CRM</p>	<p>TF to inform TEOWF team of when NE commissioned report on Masden CRM model will be available.</p>
6	<p><b>Update on ORJIP data and use of flight heights</b>  JL explained that drafting process for the latest report was in the hands of the review panel and not likely to be available until after the summer, potentially in Qtr 3 of 2017.</p>	<p>JL to check on date the report will be available for this project’s use and the</p>

	The report will include avoidance rates for gannets and gulls as well as flight heights data on the same species/species group.	availability of data on flight heights.
7	<p><b>Approach to high level HRA Screening Report</b></p> <p>.....</p> <p>AS and TF agreed that the approach explained by RB was pragmatic and reasonable at this point of the assessment with the limited data available. Details on screening provided in the HRA Screening Report.</p>	
8	<p><b>Other issues</b></p> <p>TF requested consideration of Greater Wash SPA and more specifically little gull that is associated with this designated site, as they may appear in large numbers on one-off occasions.</p> <p>AS raised a new mapping / tracking paper that the RSPB are currently completing and will be available online in May.</p> <p>JL raised point about workshop being held by Vattenfall and JNCC about the consequences of displacement – update can be provided in next meeting.</p>	<p>AS to circulate mapping / tracking paper / website link once ready.</p> <p>JL to provide update on displacement workshop in next ETG Meeting.</p>
9	<b>Next Meeting</b>	
9.1	<p>Next Topic Group Meeting is confirmed for the mid-June, to discuss the initial PEIR results from CRM and Displacement, HRA Screening report and Baseline Technical Report findings. Focus will also be given again to any Masden CRM model updates (if available).</p> <p>Date confirmed as Tuesday 13<sup>th</sup> June (in Vattenfall’s offices in Tudor Street, London). SS to send out invitation.</p>	<p>AS and TF to provide availability times for date of 13<sup>th</sup> June</p> <p>SS to send invite to the meeting.</p>
9.2	June meeting to include HM (Natural England) and GL (Vattenfall).	
7	<b>AoB</b>	



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**THANET EXTENSION OFFSHORE WIND FARM (TEOWF)  
REVIEW GROUP MEETING - OFFSHORE ORNITHOLOGY**

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**ORGANISER:** VATTENFALL WIND POWER LTD

**ATTENDEES:** SEAN SWEENEY, APEM (SS)  
ROGER BUISSON, APEM (RB) VIA TELECON  
TIM GOLDING, GOBE (TG)  
GÖRAN LOMAN, VATTENFALL (GL)  
TIM FRAYLING, NATURAL ENGLAND (TF) VIA TELECON  
HARRI MORRALL, NATURAL ENGLAND (HM)  
DORA QUERIDO, RSPB (DQ)

**APPOLOGIES:** JESPER KYED LARSEN (JL), VATTENFALL

**PURPOSE OF MEETING:** EVIDENCE PLAN OFFSHORE ORNITHOLOGY REVIEW GROUP  
TO DISCUSS ANNUAL REPORT RESULTS & PEIR / HRA SCREENING APPROACH

**DATE & TIME:** TUESDAY 13<sup>TH</sup> JUNE, 11.30—16.00

**LOCATION:** VATTENFALL OFFICE LONDON AND TELEPHONE CONFERENCE LINE

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<b>Agenda item</b>	<b>Topic for discussion</b>
<b>1</b>	Welcome and Introduction
<b>2</b>	General Project Overview and Update
<b>3</b>	Evidence Plan Update
<b>4</b>	Previous Meeting
<b>5</b>	Thanet Extension Offshore Ornithology Baseline
<b>6</b>	HRA Screening
<b>7</b>	Initial PEIR Results (CRM, Displacement, Cumulative Impact Assessment)
<b>8</b>	Next Meeting
<b>9</b>	AoB

Notes & Actions	Notes	Action
1	<b>Welcome and Introduction</b>	
2	<b>General Project Overview and Update</b>	
2.1	<p>SS gave a general update of the project. The wind farm is limited to maximum 34 turbines and maximum 340 MW in total installed capacity. The Rochdale Envelope considers three different turbine sizes for the worst case scenario, including up to 34 turbines of 8 MW, 34 turbines of 10 MW turbines or 28 turbines of 12 MW turbines.</p> <p>[Post-meeting update; The maximum rotor diameters for these three alternatives are 164 m, 180 m and 220 m, respectively, with corresponding tip height of 194 m, 210 m and 250 m.]</p> <p>Worst case with respect to ornithology (displacement and collision) is 34 turbines of 10 MW.</p> <p>Two potential landfalls are currently under consideration (Pegwell Bay and Sandwich Bay), each of which also has route options being investigated at the current time.</p> <p>Submission of PEIR is planned for September 2017 and DCO submission is planned for February 2018. This altered programme means that the submission enables additional survey data, moving closer to encompassing 24 months of combined boat and aerial baseline survey data.</p>	
3	<b>Evidence Plan Update</b>	
3.1	SS gave a brief update of the Evidence Plan purpose and extent.	
4	<b>Previous Meeting</b>	
4.1	<p>SS guided through the minutes from the previous meeting (April 20<sup>th</sup>), which raised some discussions.</p> <p><b>Historic data</b> TF asked for further information on how the historic data would be used. SS, TG and RB explained that due to wishing to progress the PEIR reporting and assessments this consideration of historic data has, to an extent, been put on hold until after the PEIR submission. TF suggested it would be useful if some form of proposal of how data would be used could be circulated prior to the progression of the data into the ES Chapter proper at the earliest opportunity. SS said that APEM would work with GoBe and Vattenfall to put together a proposal that would be discussed at the next meeting in July.</p> <p>However, SS, TG and RB proposed that the use of wider and historic data would be driven by data gaps remaining for particular months when the Application ES is drafted. It should also be noted that due to the slight shift in the programme described above, the number of such gaps is reducing. In essence, though, and in particular for specific months where data has only been obtained in one year, reference would be made to historic data collected for TOWF post construction, which were collected as part of the post-consent monitoring surveys. The first task would be to investigate the</p>	Action: APEM to consider historical data proposal for discussion at next ETG.

	<p>nature of the inter-annual variations of the main species subject to assessment for this project and to examine if the new data collected and available for the ES Chapter conforms to the same patterns of variation. All present agreed that this was a sensible approach to utilising historic data.</p> <p>Further detail, with perhaps a species example provided, would be discussed internally with a view to taking an outline methodology to the next meeting of (the whole project EP group in July).</p> <p><b>Displacement Risk</b> TF explained the approach that NE took to the displacement matrix, why NE sought to see the full matrix and how they evaluated it. NE does not look at a specific value for predicted mortality consequential on a specific displacement value. NE looks at a range of reasonable values and how that relates to the percentage change in mortality at the relevant population level. The focus is on what is the risk of a 1% increase above baseline mortality being exceeded and how does that relate to values for % displacement and % predicted mortality used to construct the matrix. TG identified that, as with other projects, the wider matrix of potential displacement outcomes could be presented an, with justification as to the range relevant to the current project noted and presented in the text of the assessment.</p> <p><b>Collision Risk</b> There was brief discussion on the CRM models: Masden 2015 and Band 2012. TF explained that due to errors and inconsistencies in the Masden model programme, NE are currently strongly recommending that developers use the Band 2012 model and also present collision figures using upper and lower confidence intervals for key parameter, eg bird densities, flight heights and AR to reflect uncertainty. [The main discussion on CRM was held over to later in the agenda, see below].</p> <p>It was agreed that the previous minutes would be updated and circulated as final for sign-off (which will be sought via email). Note should be taken, however, that the minutes are a record of what was discussed on the day, with any post-meeting updates clearly identified as such. The minutes will therefore be updated to note where subsequent discussions or comments altered the record of the discussions at the previous meeting..</p>	<p>Action: APEM to review and revise ETG3 minutes and re-circulate for sign off.</p>
<p><b>5</b></p>	<p><b>Thanet Extension Offshore Ornithology Baseline</b></p>	
<p>5.1</p>	<p>There are eight key species to be studied: red-throated diver, gannet, kittiwake, herring gull, great black-backed gull, lesser black-backed gull, razorbill and guillemot.</p> <p>SS presented the main findings of these species (see ppt-presentation). In the main the extension site and 4 km buffer consistently hosted low abundances and densities of all seabirds across all bio-seasons in comparison to other OWF sites within the southern North Sea.</p> <p>TF noted that there were low figures for the autumn migration period for several of the species (but not for the spring migration) in contrast to the findings at other proposed OWFs in the southern N Sea. SS suggested that autumn migration routes might differ as birds approach the Channel, with for instance gulls cutting across land. SS to investigate the reason for the</p>	<p>Action: APEM to investigate the low number of birds recorded during the autumn migration.</p>

	<p>low figures. The method would be similar to that discussed above in relation to historic data (TOWF) and could include the data from recent surveys for Kentish Flats Extension.</p> <p>It was noted that little gull could be sensitive to offshore wind farm development and that it was an interest feature of the proposed Greater Wash SPA. SS explained that little gull was only recorded on one occasion in the 4 km buffer and as a result this species was screened out for further assessment for this project. TF agreed that, subject to receipt of the baseline report evidencing this, this would be acceptable as an approach to screening in or out species for further assessment for this project.</p>	
<b>6</b>	<b>HRA Screening</b>	
6.1	<p>RB explained that an initial ‘high level’ screening for likely significant effects on offshore ornithology receptors has been completed. In this screening the potential types of impact being considered were:</p> <p><b>Construction phase</b></p> <ul style="list-style-type: none"> <li>• Direct disturbance and displacement</li> <li>• Indirect impacts through effects on habitats and prey species</li> </ul> <p><b>Operational phase</b></p> <ul style="list-style-type: none"> <li>• Direct disturbance and displacement</li> <li>• Indirect impacts through effects on habitats and prey species</li> <li>• Risk of collision</li> <li>• Barrier effect</li> </ul> <p>The following sites were screened in, with the criteria in parenthesis:</p> <ul style="list-style-type: none"> <li>• Outer Thames Estuary SPA; <ul style="list-style-type: none"> <li>• Red-throated diver (at a distance displacement effect).</li> </ul> </li> <li>• Alde-Ore Estuary SPA &amp; Ramsar; <ul style="list-style-type: none"> <li>• Lesser black-backed gull (within breeding foraging range).</li> </ul> </li> <li>• Foulness (Mid-Essex Coast Phase 5) SPA; <ul style="list-style-type: none"> <li>• Sandwich tern (within breeding foraging range).</li> </ul> </li> <li>• Multiple sites [closest being Flamborough and Filey Coast pSPA]; <ul style="list-style-type: none"> <li>• Gannet, kittiwake, lesser black-backed gull, herring gull, guillemot, razorbill (use of Thanet Extension + buffer use outside of the breeding season).</li> </ul> </li> </ul> <p>That screening had been carried out and the results written up in the HRA Screening Report at a point in time before the quantitative CRM and displacement figures were available. As part of the subsequent quantitative assessment there will be apportionment of birds back to relevant SPAs – this applies to the suite of seabirds from multiple sites down the eastern seaboard of the UK.</p>	
<b>7</b>	<b>Initial PEIR Results</b>	
7.1	<p><b>Collision risk modelling</b></p> <p>SS explained that the CRM was based on the worst case, which in this instance is the 34 turbines of 10 MW size option.</p> <p>SS presented the background mortality rates that would be used (see presentation), which are based upon the Robinson &amp; Horswill (2015) paper and used in the assessment of CRM and Displacement in East Anglia THREE. TF agreed that these rates are the most recent and accepted for use in current EIAs / HRAs for seabird assessments.</p>	

	<p>SS &amp; RB explained that the CRM would be presented for five species (gannet, kittiwake, lesser black-backed gull, herring gull, great black-backed gull). Fulmar would be excluded as there were so few fulmars in the surveys and as they are also not sensitive to collisions through their preference to fly at low heights over the water surface they were not assessed. TF agreed that, subject to receipt of the baseline report evidencing this, this would be acceptable as an approach to screening in or out species for CRM assessment for this project.</p> <p>SS explained that the PEIR CRM calculations would be based on the Masden (2015) model. Apart from the blade pitch vs wind speed relationship, all turbine characteristics and data were available and placed into the model as required by associated guidance. A single value for blade pitch had been used following advice from VWPL engineers.</p> <p>SS and RB provided details of the use of data and Band model options that would be used in the CRM. There was insufficient site specific detailed flight height data available from the aerial surveys carried out to be able to construct site specific flight height curves (mostly due to small sample sizes: &lt;50 flying birds available for use) to apply in the 'extended' Band model options. Instead the generic flight height curves (Johnston et al., 2014) were used. If ORJIP data becomes available prior to the start of the ES Chapter modelling work then this is proposed to be used as the most preferable site specific flight data. If ORJIP data are not available then it is hoped that the sample size for each species rises to above 100 individuals as further surveys are carried out and this will allow for site-specific flight height curves to be calculated from the aerial survey data.</p> <p>TF underlined that NE strongly recommend the use of the Band (2012) model spreadsheet at present due to the bugs in the model, some coding errors and additional uncertainties with the data due to the stochastic outputs being generated using a normal distribution and this may not be appropriate for some parameters such as bird density and may bias outputs. The Band (2012) model has a capacity to include a range of values and this feature should be used and results presented with upper and lower confidence intervals, as per Hornsea P2 approach.</p> <p>DQ explained that the RSPB had not yet come to a decision on the Masden 2015 programme and was awaiting the reports on its review.</p> <p>SS explained that for this PEIR Masden (2015) CRM results would be presented in the assessments, which TF said would be acceptable for PEIR given that Band (2012) would be used for the DCO application – though there would be caveats with regards to the results which may be over or under estimating the CRM by a small/unknown degree.</p> <p>All agreed that should the current NE and Marine Scotland reviews not be completed in time to provide a suitable revised and updated Masden (2015) model by October 2017 then this project would not be required to use it. In this instance APEM would review and revise the CRM using the Band (2012) model, with any additional data available from the surveys for the ES Chapter EAI / HRA assessments on collision risk.</p>	
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	<p>TF remarked, as above, on the near absence of some normally numerous species in the autumn migration period and asked that the raw data be double checked to be certain that it was a real effect given that those species are being recorded in the spring migration period.</p>	
<p>7.2</p>	<p><b>Displacement</b>  SS presented the preliminary results of disturbance and displacement screening.</p> <p>For <b>the construction phase</b> the disturbance/displacement of red-throated diver, razorbill and guillemot were screened in (gannet, kittiwake, herring gull, great black-backed gull and lesser black-backed gull were screened out). The assessments would consider the potential impacts from the construction activities associated with the export cable route only;</p> <ul style="list-style-type: none"> <li>• Red-throated diver. SS discussed worst case being assessed for displacement was based on use of the 4 km buffer density data. Displacement level assumed to be 100% within a 4 km buffer surrounding construction activities, which would move along the length of export cable. Maximum of 10% mortality rate presented as absolute worst case (unlikely) would lead to a negligible magnitude of effect and negligible impact.</li> <li>• Auks (razorbill and guillemot). SS discussed worst case being assessed for displacement was based on activities within the site (construction of foundations/turbines) and numbers potentially subject to displacement calculated based on a 2 km area surrounding construction activities based on two locations being active at any one time. Displacement levels assumed to be between 30-70% surrounding construction activities. Maximum of 5% mortality rate presented as worst case would lead to a negligible magnitude of effect and negligible impact.</li> </ul> <p>For <b>the operational phase</b> red-throated diver, gannet, razorbill and guillemot were screened in (kittiwake, herring gull, great black-backed gull and lesser black-backed gull were screened out).</p> <ul style="list-style-type: none"> <li>• For red-throated diver the disturbance/displacement was considered to be of negligible magnitude of effect and minor impact. This was based on 80-90% displacement within site and a 4 km buffer, due to site-specific evidence showing evidence of divers present within TOWF and a 4 km buffer surrounding it. Maximum of 5% mortality assessed. Both spring and winter bio-seasons have lower than 1% increase in mortality relative to baseline mortality.</li> <li>• For gannet the disturbance/displacement was considered to be of negligible magnitude of effect and negligible impact. Based on site-only birds being 100% displaced (as gannet known to avoid OWF footprints, but not any further). Maximum of 5% mortality assessed. Both spring and autumn bio-seasons have lower than 1% increase in mortality relative to baseline mortality.</li> <li>• For auks the disturbance/displacement was considered to be of negligible magnitude of effect and negligible impact. Based on site and 2 km buffer birds being 70% displaced. Maximum of 5% mortality assessed. Both spring and winter bio-seasons have lower than 1%</li> </ul>	

	<p>increase in mortality relative to baseline mortality.</p> <p>TF provided the following feedback:</p> <ul style="list-style-type: none"> <li>• In the calculation of annual mortality figures the estimates from the breeding bio-season months are to be included even though it is recognised that species such as gannet and auks are not breeding locally and are probably late/early passage birds.</li> <li>• NE will consider a revised red-throated diver migration-spring bioseason BDMPS that includes the evidence of the recent OTE SPA population estimate commissioned by NE from APEM.</li> <li>• NE does not look at a specific value for predicted mortality consequential on a specific displacement value. NE looks at a range of reasonable values. The focus is on what is the risk of a 1% change in mortality being exceeded. It is for the developer to make the case as to where the % mortality consequential on a specific displacement value is most likely to lie, using the evidence available.</li> </ul>	
7.3	<p><b>Cumulative Impact</b></p> <p>RB gave a brief presentation on how cumulative impact will be assessed. For <b>the construction phase</b> known activities of shipping, marine construction (such as wind farm), dredging and fishing will be considered. For activities that are not decided but in different stages of planning, the likelihood of realisation will be evaluated.</p> <p>For <b>the operational phase</b>, the impact from other wind farms (existing or planned) will be considered.</p> <p>RB explained that the key issue in the assessment process, based on the work to date, is the size of the contribution of Thanet Extension to the cumulative total. In some instances the contribution is negligible but the cumulative total generated by other built, consented and proposed OWFs is of a magnitude that the impact is significant. This is the case irrespective of the inclusion of Thanet Extension in the total.</p> <p>TF agreed and that when NE is formulating its advice the proportion that the project contributes to the total is a key issue.</p>	
<b>8</b>	<b>Next meeting</b>	
8.1	<p>Next meeting for entire project will be 12<sup>th</sup> July, at Vattenfall's London office. Offshore Ornithology to have a separate break out session during this day to consider progress of actions and updated reports submitted to NE and RSPB in advance.</p> <p>TF requested that any papers for discussion were issued in advance of the meeting.</p>	
<b>9</b>	<b>Any Other Business</b>	
9.1	No other business.	

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**OFFSHORE ORNITHOLOGY MEETING MINUTES**

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**MEETING ORGANISER:** VATTENFALL WIND POWER LTD

**ATTENDEES:** SEAN SWEENEY (APEM)  
 ROGER BUISSON (APEM)  
 SEAN LEAKE (GOBE CONSULTANTS)  
 SAMMY MULLAN (GOBE CONSULTANTS)  
 GÖRAN LOMAN (VATTENFALL)  
 JESPER KYED LARSEN (VATTENFALL)  
 TIM FRAYLING (NATURAL ENGLAND)  
 WILLIAM HUTCHINSON (NATURAL ENGLAND)  
 ALEX SANSOM (RSPB)

**APOLOGIES/MEMBER NOT REQUIRED FOR PARTICULAR MEETING:** SALLY KAZER (GOBE CONSULTANTS)

**PURPOSE OF MEETING:** TO DISCUSS THE OFFSHORE ORNITHOLOGY PEIR CHAPTER AND HRA SCREENING AHEAD OF OFFICIAL SECTION 42 FEEDBACK IN ORDER TO PROGRESS ANY WORK AHEAD OF ES CHAPTER DRAFTING.

**DATE & TIME & LOCATION:** TUESDAY 12<sup>TH</sup> DECEMBER 2017, 13:00 TO 15:00  
 TELECONFERENCE.

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<b>Agenda item</b>	<b>Topic for discussion</b>
<b>1</b>	Welcome and Introduction
<b>2</b>	Overview of the project and update
<b>3</b>	Use of site-specific data to derive displacement rates for auks and divers
<b>4</b>	CRM for ES Chapter
<b>5</b>	Proposals to use data on red-throated diver for cumulative / in-comb'n assessments (Including a post-meeting note)
<b>6</b>	Other topics
<b>7</b>	AOB



Agenda item	Notes	Action
1	<p><b>Welcome and Introduction</b></p> <p>SS provided chair role for the meeting. Round table introductions were made. A run through the documents circulated to the correspondence list.</p> <p>SS went through the brief that circulated ahead of the meeting, which was to explain that the project’s programme is tight between the PEIR and the submission of the ES Chapter. As we wish to use this limited time period as wisely as possible, this call was set up before Christmas to discuss NE and RSPB’s initial thoughts (pre-Section 42 responses) on the PEIR documents on offshore ornithology. It also provides an opportunity to update NE and RSPB on any additional notes and methods being proposed with regards to updating the CRM using Band (2012), the use of historic data and the methods proposed to use for calculating cumulative (at and EIA level) and in-combination (at a HRA level) potential impacts for red-throated diver.</p>	n/a
2	<p><b>Overview of the project and update</b></p> <p>SL provided an update on the project including an update on the following key points.</p> <ul style="list-style-type: none"> <li>• S42 is due for completion on 12<sup>th</sup> January</li> <li>• Substantive comments will be discussed with stakeholders during the updating/ drafting period of the ES chapters.</li> <li>• It is the intention that the RIAA will be submitted for review by the EP technical panel ahead of DCO application.</li> </ul> <p>SS provided an update on surveys. The December flight had been done and population estimates were currently being derived from it. When taken with the boat data, the project has available 24 months of recent site specific data. This is backed up by the TOWF historical data.</p>	n/a

<p>3</p>	<p><b>Use of site-specific data to derive displacement rates for auks and divers</b></p> <p>TF raised concern with the use of alternate displacement rates in the PEIR for both construction and operational phase assessments, as they do not use the recommended rates in the SNCB guidance paper. TF recommended using the displacement guidance rates for divers, in particular, and advised data includes the a 4 km buffer at rates of up to 100% displacement. Also expressed that use of displacement rates for auks and gannet followed the same guidance.</p> <p>SS explained that with a wealth of data available from TOWF helped to define and provide evidence for site-specific displacement rates as described in post-construction monitoring reports for that project. NE advised figures based on current SNCB guidance on displacement rates are presented alongside those preferred by the project team and be provided in the final ES Chapter. SS suggested the best place for additional displacement matrices would be in a separate appendix.</p> <p>TF asked for the final ES Chapter to have annual displacement rates in it and not just selected seasonal assessments. SS replied that this can be accommodated in the final ES, where relevant.</p>	
<p>4</p>	<p><b>CRM for ES Chapter</b></p> <p>SS asked TF to confirm what the expectations were on CRM modelling from NE. TF said that use of Band (2012) following the methods used and outputs presented in the recent Hornsea P2 submission documents would be required – which involves the stochastic outputs. SS confirmed that this method had been discussed internally with GoBe and Vattenfall and would be followed. TF also noted that use of the Band Option 3 should only be used for a limited number of species, in line with the findings of the recent BTO report.</p> <p>TF asked if ORJIP flight height and flight speed data was able to be incorporated into the CRM. SS confirmed that early discussions on the release and analysis of a limited data set from ORJIP were ongoing. Initial indicators are that the data from ORJIP may have to be treated differently to that from boat and aerial sources, with consideration of different avoidance rates required. APEM to confirm appropriate use of data once in receipt of data and any associated reporting that account for data collection and use in CRM. APEM confirmed that an update would be provided to NE in the next ETG meeting, after any data and reporting has been received, processed and understood.</p>	

**Proposals to use data on red-throated diver for cumulative / in-combination assessments**

RB gave a brief run through the paper “Red-throated Diver Cumulative (EIA) and In-combination (HRA) Assessment – Proposed Methodology” that had been circulated before the meeting. The key points from the paper were –

- “ Placing the ‘alone’ contribution of Thanet Extension in context, relative to all other proposed, consented or constructed offshore wind farms, mitigating the false confidence that can arise when considering absolute numbers derived from uncertain sources.
- Applying a single source of red-throated diver density across all the offshore wind farms included in the assessment.
- Applying, where relevant, the as-built layout of the array rather than the worst case design for the array as assessed in the application.
- Considering the two ends of the range of scenarios over which standardised displacement matrices are prepared.
- For the HRA, apportioning a percentage of birds to the relevant SPA where the wind farm is located outside the SPA.”

The key points discussed on these topics were -The key points from the discussion were:

- TF: Welcomed the approach of using a single source for Red throated diver (RTD) distribution and density from which to undertake cumulative / in-combination assessments. The assumptions underlying the methodology would need to be explained in the assessment. Expressed concern that proposal in the PEIR used figures from individual projects ES, for example the predictions in the ES for Lincs significantly underestimate numbers of RTD displaced given the results of post-construction monitoring and the robustness of the TOWF post-consent monitoring as both were based on surveys carried out by observers in boats. Re-emphasised that NE and RSPB will base their views on an assessment using the SNCB parameters of 100% displacement up to 4 km. TF highlighted potential reliability issues with RTD estimates from boat surveys due the greater risk of birds taking off in front of the vessels.

**POST MEETING NOTE:** JL - The post-consent monitoring survey reports (survey that used vessels) have been checked and three observers were present with one forwards looking, to ensure that birds taking off at a distance from the front of the vessel would have been accounted for. TF – still suggests that these data are likely to underestimate diver densities.

- Displacement will be presented for both a 4 km and 0 km buffer in the assessment
- The questioning of the robustness of the TOWF post-consent monitoring data is new to Vattenfall.
- AS: A single data source for non-breeding at-sea density of RTD is unlikely to be available for Scotland.
- RB: the output would not be available until February 2018.

5

TF to check with MMO to learn if Lincs post-construction monitoring report is publicly available

**Post Meeting Note** inserted regarding methods used for collecting post-consent monitoring data for TOWF

<p>5 (cont.)</p>	<ul style="list-style-type: none"> <li>• A discussion was held on how birds would be apportioned to SPAs. RB confirmed that birds would be apportioned to the nearest SPA. TF agreed this was a reasonable approach but text would need to be provided in the RIAA outlining the assumptions of the methodology. This needs to include an acknowledgement that birds may spend time in different SPAs i.e. in different parts of the North Sea. For HRA purposes, numeric values will be provided based on a proportion of a known reference population. Therefore, not all birds in Thanet will be assumed to be SPA birds.</li> </ul>	
<p>6</p>	<p><b>Other Topics</b></p> <ul style="list-style-type: none"> <li>• TF asked how much data would be used in the assessments in the final ES Chapter and associated Baseline Technical Report. SS replied that 22 months of aerial digital data (March 2016 to December 2017) would be included in the final ES Chapter.</li> <li>• AS asked if the monthly data presented in the PEIR and associated Baseline Technical Report was of mean, mean-peaks or peak-means. SS provided explanation of use of data in the PEIR baseline, i.e. peak means had not been applied. The survey data only included a single count for each month and so there was no mean for that. Each bio-season figure was the peak count from the respective months. The ES, for which two years of data would be available for most months, would have bio-season figures based on the mean of the peak count recorded in each respective bio-season from Year 1 and Year 2.</li> </ul>	
<p>7</p>	<p><b>AOB</b></p> <ul style="list-style-type: none"> <li>• No AOBs raised.</li> </ul>	

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## ONSHORE ECOLOGY & ORNITHOLOGY MEETING MINUTES

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**MEETING ORGANISER:** VATTENFALL WIND POWER LTD

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**TECHNICAL LEAD/FACILITATOR** CAROLINE GETTINBY; IAN SIMMS, AMEC FOSTER WHEELER

**ATTENDEES:** IAN SIMMS, AMEC FOSTER WHEELER  
 CAROLINE GETTINBY, AMEC FOSTER WHEELER  
 HEATHER TWIZELL, NATURAL ENGLAND  
 HARRI MORRALL, NATURAL ENGLAND  
 TIM GOLDING, GOBE CONSULTANTS  
 JENNIFER WILSON, ENVIRONMENT AGENCY  
 IAN HUMPHREYES, ENVIRONMENT AGENCY

**APPOLOGIES:** VANESSA EVANS, KENT WILDLIFE TRUST;

**PURPOSE OF MEETING:** EVIDENCE PLAN REVIEW PANEL KICK OFF MEETING TO DISCUSS THE TERMS OF REFERENCE, EVIDENCE PLAN PROCESS, AND INITIAL TECHNICAL DISCUSSIONS ON SCOPE AND NEXT STEP

**DATE & TIME & LOCATION:** MONDAY 27<sup>TH</sup> FEBRUARY 2017 1300-1630.  
 DISCOVERY PARK

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Agenda item	Topic for discussion	
1	Welcome and Introduction	
2	Overview of the project	
3	Overview of the EP process – purpose and aims, the process going forward	
4	Review Panel membership	
5	Review Panel breakout sessions	
6	AOB	
Notes & Actions	Notes	Action
1	SL provided chair role for the meeting. Round table introductions were made	n/a
	SL provided an update on the project including an update on the following key points <ul style="list-style-type: none"> <li>• High level programme dates</li> <li>• PEI July 2017</li> <li>• Submission Jan 2018</li> <li>• Extension encompasses original site;</li> <li>• 34 x 8MW WTG as base case;</li> </ul>	n/a

	<ul style="list-style-type: none"> <li>• Monopiles preferred but included jackets with pin piles or suction caissons</li> </ul> <p>SL provided an overview of the 2 cable route options currently being considered; the northern route to Pegwell Bay and the southern route into Sandwich Bay. Options were maintained for scoping and a decision is currently being made following feedback from scoping and an ongoing appraisal process.</p>	
<p>3</p>	<p>SL provided an overview of the EP process including the purpose and the aims. It is essentially a collaborative process between Vattenfall and the stakeholders to establish robust data on which the HRA will be based. JDM highlighted that this EP process is seeking to agree the data and assessments for EIA also as much of the data required for HRA will be relevant to EIA.</p> <p>The consultation undertaken as part of this process will be used to agree SoCG and ultimately this process seeks to streamline the application leaving only those items still to be agreed as a focus for the examination.</p> <p>SL highlighted that it is Vattenfall’s desire to get as many issues ID’d as possible and get to the point of agreement if possible. The EP process should be seen as useful process to follow and a very positive process, that provides all parties with the opportunity to consider the data and evidence underpinning the assessment at an early stage and to ensure as far as is possible that there is early consensus on key issues, and the adequacy of the information being used to address those issues and concerns.</p> <p>SL emphasised that Technical Review Panels are designed to build on data and discussions previously held, they are not intended to start from scratch.</p> <p>SL discussed the project and Evidence Plan programmes and encouraged feedback both from the stakeholders providing comments on the Terms of Reference document but also in discussing the needs and next steps in the particular Review Panels.</p> <p>SL outlined that documentation to be covered within meetings will be circulated in advance of meetings to allow for review (14 days); and that the expectation is that any documentation submitted for agreement that is not to be discussed at a particular meeting should be returned with comments in line with the 21 day review cycle unless otherwise agreed.</p> <p>SL introduced the consultation log concept as provided within the ToR which will be produced for each review panel. The log is designed to track areas of agreement and outstanding queries to be resolved for each topic area that the stakeholder(s) have an interest in.</p> <p>SL finally iterated that the project would welcome confirmation that the ToR document is accurate and appropriate, and welcomed feedback on the ToR. JW@EA highlighted that the ToR did not appear to be included in information provided. SL Agreed to provide alongside the presentation as requested by MA.</p>	<p>SL to provide ToR document and presentation with the minutes.</p>

<p>4</p>	<p>SL gave an overview of the Roles and responsibilities as outlined in the ToR document before then describing the proposed Technical Review Panels and associated membership. It was highlighted that the Environment Agency need to be included across multiple topic areas and a coordinated approach would be needed to ensure EA interests across both onshore and offshore are adequately represented. The Membership was then discussed and agreed as highlighted on Slide 27 of 29 in the attached pdf of the introductory presentation.</p>	
<p>5</p>	<p><b>Onshore Biodiversity: Ecology/Ornithology sub-group</b>  Sub-group consisted of NE and EA reps. Key biodiversity contacts and communication paths were agreed for all. The use of specific technical specialists was also discussed and it was agreed to cc all key contacts into tech specific emails too. EA and NE agreed the single voice principle – that they would agree which party would comment on which receptor/when in relation to those where overlapping (aquatic and protected species) interests exist – e.g. water voles, otters</p> <ul style="list-style-type: none"> <li>• <b>Scoped in/out issues</b> (from scoping opinion and subsequent discussions through EP process)  Relevant biodiversity comments and responses received in the scoping opinion were detailed by AFW and discussed by the group. All issues were positively addressed or would be addressed within the PEIR/ES and ongoing assessment process. Discussion re the need for separate HRA EP meetings to combine offshore and on shore elements, holistic HRA EP meetings to be investigated</li> <li>• <b>Study area description</b>  Key biodiversity buffer zones were detailed and discussed, no current issues in relation to proposed ecological survey areas. Option appraisal process was discussed for both routes</li> <li>• <b>Data and information sources</b> – baseline data analysis to be undertaken although nature of ecological surveys will result in only outline results for discussion within the PEIR. AFW to issue an outline monitoring plan statement to provide basis for further discussion</li> </ul> <p>Concerns raised regarding overwintering bird data were discussed and AFW confirmed that survey were ongoing and that the results of the current NE golden plover surveys would provide valuable detailed data to aid the assessment process.</p> <p>Data requests for natterjack toad and sand lizard were discussed with NE and clarification for white-clawed crayfish records from EA.</p> <p>AFW/NE discussed approach to great crested newt surveys – details to be discussed further in expert 2 expert telecom</p>	<p>Details of key contacts to be circulated</p> <p>Summary response to scoping opinion comments to be issued to NE/EA</p> <p>AFW to issue outline survey plan</p> <p>NE to circulate natterjack/sand lizard data</p> <p>EA to confirm location of WCC records <b>The records are held by</b></p>

	<p>Next EP meeting to be scheduled following issue of outline monitoring plan (w/c March 6<sup>th</sup>) via a telecom on either 16<sup>th</sup> or 21<sup>st</sup> March</p> <ul style="list-style-type: none"> <li>• <b>Identification of potential impacts to be assessed</b> Cumulative projects – the intent is to agree a list of projects that are scoped in for CIA and a cut-off date after which we won't be able to continue to update the assessment.</li> </ul> <p>Full details of designated sites, screening process, preferred options , Zol etc. to be discussed at next meetings</p> <ul style="list-style-type: none"> <li>• <b>Key uncertainties</b> At this point, choice of route option/route.</li> <li>• <b>Mitigation and monitoring commitments</b> None at this stage.</li> </ul>	<p><b>EA. EA have confirmed this to Caroline Gettinby and SL in an email dated 6 March 2017</b></p> <p>Next meeting date agreed – 16<sup>th</sup> or 21<sup>st</sup> March via telecom</p>
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## Sammy Mullan

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**From:** Sean Leake  
**Sent:** 04 December 2017 17:05  
**To:** Vanessa Evans; Sammy Mullan; Loman Göran (WB-O) [redacted]  
[redacted] joanna.clements [redacted] Julie Drew-  
Murphy; Fiona Runacre [redacted] Wilson, Jennifer  
[redacted] Reid, Tom; Foxall, Tom; Pater, Chris; Churchley, Stuart;  
[redacted] Querido,  
Dora; [redacted] Iain.Livingstone [redacted] Oliver  
Gardner; Gettinby, Caroline; Simms, Ian; Karen Wilson; Mabbitt, John; Roberts, Amy; Stuart Cargill;  
Roger Buisson; Braid, Ana  
**Cc:** Hutchinson, William (NE); [redacted] Lucinda Roach  
[redacted] Wood, Martin; [redacted]  
**Subject:** RE: Thanet Extension - Evidence Plan - Onshore Technical Review Groups

Hi Vanessa,

Apologies if there has been any confusion caused by the re-issue of amended minutes. We were keen to provide minutes that reflected the updates requested from other attendees whilst waiting for you to confirm KWT's position with regards the introduction of the Nemo cable crossing.

I'm afraid that I cannot remove that text from the minutes. It accurately represents the summary that I provided at the meeting. We can include a post meeting objection to the meeting minutes if you would prefer.

I would also like to apologise if KWT feel that they are struggling to make the KWT position clear. In my understanding KWT have objected to the project making landfall at Pegwell Bay, this objection has been made clear at all evidence plan and stakeholder meetings and has been recorded as such. This record is evident despite the remit of the evidence plan being to discuss the survey methods, data, models etc and *not* the merits of the project.

With regards the more specific comment on the KWT position on the method of installing the cable after the landfall. It is a matter of record that, whilst KWT object to the Pegwell Bay landfall, when asked for thoughts on the onshore element of the Thanet Extension export cable the preference was voiced for a crossing of Nemo rather than a trenching in the Stonelees Nature Reserve. This preference was not voiced as inferred support for the project, but as a clear preference when given two options i.e. that of trenching in Stonelees or crossing Nemo, with the associated berm. In summary we cannot amend the minutes to remove the information I provided at the meeting, this would be striking information out from the record and would not be accurate. We can however note that KWT maintain an objection to the landfall location.

We also cannot change the record for the preferences stated at the unilateral stakeholder meetings. Again, this would be a failure to accurately record discussions held at those meetings.

If you would be able to agree that the minutes accurately reflect the meeting, it would be appreciated. If you are unable to agree the minutes we shall record it as such and submit this with the wider evidence plan when it is put forward for final application.

Kind regards

Sean

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**From:** Vanessa Evans [mailto:Vanessa.Evans@kentwildlife.org.uk]

**Sent:** 04 December 2017 15:42

**To:** Sean Leake [redacted] Sammy Mullan [redacted] Loman Göran (WB-O)  
[redacted] joanna.clements [redacted]  
[redacted] Julie Drew-Murphy [redacted]

[Redacted] Fiona Runacre [Redacted]  
Wilson, Jennifer [Redacted] Reid,  
Tom [Redacted] Foxall, Tom [Redacted] Pater, Chris  
[Redacted] Churchley, Stuart [Redacted]  
[Redacted] Wincott, Rebecca [Redacted]  
[Redacted] Oliver Gardner [Redacted] Gettinby, Caroline  
[Redacted] Simms, Ian [Redacted] Karen Wilson  
[Redacted] Mabbitt, John [Redacted] Roberts, Amy  
[Redacted] Stuart Cargill [Redacted] Roger Buisson [Redacted]  
Braid, Ana [Redacted]  
Cc: Hutchinson, William (NE) [Redacted]  
[Redacted] Lucinda Roach [Redacted] Wood,  
Martin [Redacted]

**Subject:** RE: Thanet Extension - Evidence Plan - Onshore Technical Review Groups

Dear Sean

Here is my original comment, extracted for clarity from my email comments, regarding the minutes that were provided of the Evidence Plan meeting of 3<sup>rd</sup> October:

*"The Wildlife Trust requested during senior-level discussions the need to avoid Stonelees reserve, notwithstanding our overarching objection to the development proposal. This does not mean that we endorse the option to cross the country park with a bund described in this Evidence Plan meeting as likely to be over 5m high. Therefore, please re-word the misleading bullet point to reflect this, "SL explained that the changes to programme since July are due to the design changes and the incorporation of an additional route being assessed in the PEIR. This additional route has been considered by the project as a direct result of consultation with KWT.""*

My email was sent on 13<sup>th</sup> November, which is within the deadline for comment. However, "amended" minutes were then circulated by your colleague, Sammy, on 16<sup>th</sup> November and therefore I am unsure why your email of 27<sup>th</sup> November asks for further clarification on my original comments.

I would suggest instead that I comment here on the "amended" minutes, sent out by Sammy on 16<sup>th</sup> November. The new statement appears to be, *"This additional route has been considered by the project as a direct result of consultation with KWT, specifically as an alternative option that avoids the burial of cables in the Stonelees Nature Reserve"*. Unfortunately, this is still misleading because it appears to imply that KWT support the alternative route option or that we have been involved in the development of this alternative route. I would be grateful if this statement can please be removed.

We appear to be having difficulty making our position clear in this consultation process, therefore I would be most grateful if you can please ensure that our position is recorded separately in your consultation record, referring to this email, at the correct stage in both the stakeholder and Evidence Plan process.

**In response to your email of 24<sup>th</sup> November, I have clarified with those present at the stakeholder meeting and our position is set out below:**

- **Kent Wildlife Trust has consistently given our overarching objection to the route passing through Sandwich and Pegwell Bay at both Evidence Plan meetings and stakeholder meetings.**
- **During stakeholder meetings with senior staff present, it was made clear that Stonelees reserve was especially sensitive and highly designated and this area should be avoided.**
- **KWT have not proposed or negotiated on an alternative route during these meetings.**
- **KWT have not proposed that this alternative route is achieved "by crossing Nemo" as stated in your email of 24<sup>th</sup> November.**

Unfortunately, we are unable at this stage to confirm that the minutes accurately reflected the meeting.  
Kind regards  
Vanessa

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**From:** Sean Leake [redacted]  
**Sent:** 27 November 2017 12:10  
**To:** Vanessa Evans; Sammy Mullan; Loman Göran (WB-O) [redacted]  
[redacted] Julie Drew-Murphy; Fiona Runacre  
[redacted] Wilson, Jennifer Reid, Tom; Foxall,  
Tom; Pater, Chris; Churchley, Stuart;  
[redacted] Wincott, Rebecca;  
Querido, Dora; [redacted] Iain.Livingstone [redacted] Oliver Gardner;  
Gettinby, Caroline; Simms, Ian; Karen Wilson; Mabbitt, John; Roberts, Amy; Stuart Cargill; Roger Buisson; Braid, Ana  
**Cc:** Hutchinson, William (NE); [redacted] Lucinda Roach  
[redacted] Wood, Martin;  
[redacted]  
**Subject:** RE: Thanet Extension - Evidence Plan - Onshore Technical Review Groups

Hi Vanessa,  
Many thanks. Main thing is that we would like to confirm the minutes as an accurate reflection of the meeting. There is no inferred support for the project, and the principled objection held by KWT is included in all minutes to this end. If you would prefer to provide alternative wording with regards the introduction of the Nemo crossing I'm happy to consider them against the minutes associated with the meetings held in July and August with KWT. But again the main thing I would like to ensure is that the minutes accurately record what was discussed at the meetings, and any agreement/disagreements with regards information and/or data that was brought forward. If you are able to confirm the minutes accurately reflect the meeting it would be greatly appreciated.  
Kind regards  
Sean

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**From:** Vanessa Evans [redacted]  
**Sent:** 27 November 2017 12:01  
**To:** Sean Leake [redacted] Sammy Mullan [redacted] Loman Göran (WB-O) [redacted]  
[redacted] joanna.clements  
[redacted] Julie Drew-Murphy [redacted]  
[redacted] Fiona Runacre [redacted]  
Wilson, Jennifer [redacted] Reid,  
Tom [redacted]; Foxall, Tom [redacted]; Pater, Chris  
[redacted]; Churchley, Stuart [redacted]  
[redacted] Wincott, Rebecca [redacted]  
[redacted] Querido, Dora [redacted]  
[redacted] Iain.Livingstone [redacted]  
[redacted]; Oliver Gardner [redacted]; Gettinby, Caroline  
[redacted]; Simms, Ian [redacted]; Karen Wilson  
[redacted]; Mabbitt, John [redacted]; Roberts, Amy  
[redacted]; Stuart Cargill [redacted]; Roger Buisson [redacted];  
Braid, Ana [redacted]  
**Cc:** Hutchinson, William (NE) [redacted]  
[redacted] Lucinda Roach [redacted] Wood,  
Martin [redacted]

[REDACTED]  
**Subject:** RE: Thanet Extension - Evidence Plan - Onshore Technical Review Groups

Dear Sean

As you are aware I was not present at those information meetings. Therefore, I will discuss this with our Chief Executive (who was present) and get back to you with some more appropriate wording.

Kind regards

Vanessa

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**From:** Sean Leake [REDACTED]  
**Sent:** 24 November 2017 15:29  
**To:** Vanessa Evans; Sammy Mullan; Loman Göran (WB-O) [REDACTED];  
[REDACTED] joanna.clements [REDACTED]; Julie Drew-Murphy; Fiona Runacre  
[REDACTED]; Wilson, Jennifer [REDACTED]; Reid, Tom; Foxall,  
Tom; Pater, Chris; Churchley, Stuart; [REDACTED]  
[REDACTED] Wincott, Rebecca; [REDACTED]  
Querido, Dora; [REDACTED] Iain.Livingstone [REDACTED] Oliver Gardner;  
Gettinby, Caroline; Simms, Ian; Karen Wilson; Mabbitt, John; Roberts, Amy; Stuart Cargill; Roger Buisson; Braid, Ana  
**Cc:** Hutchinson, William (NE); [REDACTED] Lucinda Roach  
[REDACTED] Wood, Martin; [REDACTED]  
**Subject:** RE: Thanet Extension - Evidence Plan - Onshore Technical Review Groups

Hi Vanessa,

Have you had the opportunity to consider what alternative wording you would like to be included in the minutes with regards the introduction of the Nemo crossing?

Having reviewed the meeting minutes of the unilateral meetings between Vattenfall and KWT I can confirm that KWT have asked Vattenfall on two occasions to consider the avoidance of the Stonelees Nature Reserve by crossing Nemo. The first was in July of this year, where Vattenfall took away an action to consider it, and the second in August wherein Vattenfall reported that the option would involve a ~4 m high berm. At this second meeting Vattenfall reported that due to potential significant effects the crossing may not be appropriate; KWT confirmed that it was still preferred when compared to burial within Stonelees Nature Reserve. In reflection of this request Vattenfall introduced this option for formal consultation.

I am keen on the minutes to accurately reflect the discussions on the day, and also the wider consultation that has been undertaken to date as will be reflected in the consultation report. I feel the information presented in the minutes and presentation on the day does this, but would welcome your thoughts on alternative wording.

Kind regards

Sean

Many thanks in advance

Sean

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**From:** Sean Leake  
**Sent:** 13 November 2017 17:12  
**To:** 'Vanessa Evans' [REDACTED]; Sammy Mullan [REDACTED]; Loman  
Göran (WB-O) [REDACTED]  
joanna.clements [REDACTED] Julie Drew-Murphy  
[REDACTED] Fiona Runacre  
[REDACTED] Wilson, Jennifer [REDACTED]  
[REDACTED] Reid, Tom [REDACTED]; Foxall, Tom  
[REDACTED] Pater, Chris [REDACTED] Churchley, Stuart  
[REDACTED]

Wincott, Rebecca

Querido, Dora

Iain.Livingstone

Oliver Gardner

Gettinby, Caroline

Simms, Ian

Karen Wilson

Mabbitt, John

Roberts, Amy

Stuart Cargill

Roger Buisson

Braid, Ana

Cc: Hutchinson, William (NE)

Lucinda Roach

Wood,

Martin

**Subject:** RE: Thanet Extension - Evidence Plan - Onshore Technical Review Groups

Hi Vanessa,

Many thanks for this. We will of course pick these comments up and update the minutes accordingly. We will also re-issue the minutes from the meeting in July.

I do however have a query your bullet 3. Would it be possible for you to provide suggested wording regarding what you consider to be a misleading point made during the meeting of the 23<sup>rd</sup> August?

Kind regards

Sean

**From:** Vanessa Evans

**Sent:** 13 November 2017 16:56

**To:** Sammy Mullan

Sean Leake

Loman Göran (WB-O)

joanna.clements

Julie Drew-Murphy

Fiona Runacre

Wilson, Jennifer

Reid,

Tom

Foxall, Tom

Pater, Chris

Churchley, Stuart

Wincott, Rebecca

Querido, Dora

Iain.Livingstone

<

Oliver Gardner

Gettinby, Caroline

Simms, Ian

Karen Wilson

Mabbitt, John

Roberts, Amy

Stuart Cargill

Roger Buisson

Braid, Ana

Cc: Hutchinson, William (NE)

Lucinda Roach

Wood,

Martin

**Subject:** RE: Thanet Extension - Evidence Plan - Onshore Technical Review Groups

Thank you Sammy

My points are as follows:

- During this Evidence Plan meeting, new information was provided describing two possible options (1 and 2) of the chosen northern route corridor. It needs to be made clear in the minutes that this was new information provided, which participants had not had an opportunity to consider before.

- It was/is not possible to draw any direct comparison of the two route options presented (1 and 2) because insufficient information was provided during the meeting of the two options and their potential impact upon biodiversity in and around the route corridor. No clear route plan across the landward area was provided for either possible route; no dimensions of the construction corridor or details of habitats impacted. There was no parity in the information provided on each route and in fact it was not clear which option of 1 and 2 would take the cable around Stonelees reserve, as this was not indicated on the slides. Although this was expressed by stakeholders during this meeting it does not come across in the meeting minutes and therefore they do not accurately reflect events on the day. I would be grateful if this **need for clear comparison** can be added in where it states, *“VE has requested to have dimensions of habitat loss for both TJB Options. VE has requested a plan of potential TJB. SL confirmed that there are plan view drawings but that there are not maps available at this time as the locations have not yet be determined.”*
- The Wildlife Trust requested during senior-level discussions the need to avoid Stonelees reserve, notwithstanding our overarching objection to the development proposal. This does not mean that we endorse the option to cross the country park with a bund described in this Evidence Plan meeting as likely to be over 5m high. Therefore, please re-word the misleading bullet point to reflect this, *“SL explained that the changes to programme since July are due to the design changes and the incorporation of an additional route being assessed in the PEIR. This additional route has been considered by the project as a direct result of consultation with KWT.”*
- I cannot, in their current form, give these minutes my approval and I would like this to be recorded for the purpose of the NSIP process.
- Kent Wildlife Trust looks forward to receiving sufficient information in the next formal stage of planning consultation to enable us to form a constructive and evidence-based view on the development proposal. It is our understanding during this Evidence Plan meeting that this will be the PEI, due at the end of November 2017. It is crucial that stakeholders are informed of this and I would be grateful if you would please give me notice by email of when this information will be available on PINS website.
- In the meantime we maintain our overarching objection to this proposal due to the likely impact on sensitive, internationally and nationally protected habitats and species.

In addition, I would ask for a response on my email of 17/08/2017. I made comments on the minutes of the Onshore Evidence Plan meeting on 11<sup>th</sup> July 2017 (in my email of 17/08/2017) and yet amended minutes have still not been provided. It is usual practice where comments are requested that these are acknowledged and amended accordingly as part of the iterative consultation process. This is an important part of a National Infrastructure Project, in order that it can be demonstrated at the examination stage that consultation has been effective and inclusive. For ease, I have cut and pasted my comments from the email of 17/08/2017 for you here:

- *I requested during the meeting that our dissatisfaction should be expressed in the minutes that there is no opportunity for consultation before submission on the preferred route selection with respect to north/south landfall choice. I would be grateful if this could be added in number 2, please.*
- *It is not correct to state that “these discussions have been ongoing more broadly” in number 2. Please remove this sentence, it is incorrect. The preferred route was disclosed to our Chief Executive during a recent meeting to discuss survey permission and site access on 05/07/2017. As far as I am aware, this is the only occasion that this preferred route has been disclosed. Please advise if there have been other discussions about the preferred route that I am not aware of.*

- *It is stated in number 2 that, "VE clarified that KWT position is not to go through Stonelees". I did in fact state that the KWT position is that we have an overarching objection to the route and we do not wish it to go through Sandwich and Pegwell Bay at all. Please add this to the minutes at number 2, in addition to the point that KWT would prefer to avoid Stonelees.*
- *Number 6 does not include the reference to the additional impacts of the project to repair to the existing Vattenfall Cable, as outlined towards the end of the meeting. I asked that this be included for the several meeting participants (particularly from the LPA's) who had left the meeting before this was discussed. I would be most grateful if a summary of the discussion about this additional project and its impact, if any, upon the scoping for the Extension project can be added please.*

Thank you for the opportunity to comment on the meeting minutes.  
 With kind regards  
 Vanessa Evans

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**From:** Sammy Mullan [REDACTED]  
**Sent:** 23 October 2017 15:33  
**To:** Sean Leake; Loman Göran (WB-O) [REDACTED]; joanna.clements [REDACTED]; Julie Drew-Murphy; Fiona Runacre [REDACTED]; Wilson, Jennifer [REDACTED]; Reid, Tom; Foxall, Tom; Pater, Chris; Churchley, Stuart; [REDACTED]; Vanessa Evans; Wincott, Rebecca; [REDACTED] Querido, Dora; [REDACTED]; Iain.Livingstone [REDACTED]; Oliver Gardner; Gettinby, Caroline; Simms, Ian; Karen Wilson; Mabbitt, John; Roberts, Amy [REDACTED]; Stuart Cargill; Roger Buisson; Braid, Ana  
**Cc:** Hutchinson, William (NE); [REDACTED] Lucinda Roach [REDACTED]; Wood, Martin; [REDACTED]  
**Subject:** RE: Thanet Extension - Evidence Plan - Onshore Technical Review Groups

Dear All,

Please find attached the presentation and the minutes from the Onshore Evidence Plan meeting for agreement. Please could all comments be provided within 3 weeks (by Monday 13<sup>th</sup>). If we do not receive comments then we will assume agreement and enter it into the Evidence Plan log as such.

Many Thanks,  
 Sammy

Sammy Mullan, Consultant  
 [REDACTED]

-----Original Appointment-----

**From:** Sammy Mullan  
**Sent:** 24 August 2017 12:37  
**To:** Sammy Mullan; Sean Leake; Loman Göran (WB-O) [REDACTED]; joanna.clements [REDACTED]; Julie Drew-Murphy; Fiona Runacre [REDACTED]; Wilson, Jennifer [REDACTED]; Reid, Tom; Foxall, Tom; Pater, Chris; Churchley, Stuart; [REDACTED]; Vanessa Evans; Wincott, Rebecca; [REDACTED] Querido, Dora; [REDACTED]; Iain.Livingstone [REDACTED]; Oliver Gardner; Gettinby, Caroline; Simms, Ian; Karen Wilson; Mabbitt, John; Roberts, Amy [REDACTED]; Stuart Cargill [REDACTED]; Roger Buisson; Braid, Ana



**Cc:** Hutchinson, William (NE); [REDACTED]

**Subject:** Thanet Extension - Evidence Plan - Onshore Technical Review Groups

**When:** 03 October 2017 10:00-14:00 (UTC+00:00) Dublin, Edinburgh, Lisbon, London.

**Where:** Vattenfall's Offices (Ramsgate)

Dear All,

Please see the revised timings for this meeting.

The dial-in details for the meeting are as follows:

[REDACTED]

Kind Regards,  
Sammy

.....

Dear All,

As discussed, in the previous Evidence Meetings we would like to have a discussion on onshore technical topics for the proposed Thanet Extension project ahead of PEI submission.

As a rough agenda we would like to cover –

- The PEI headline findings for each of the topics
- An update on the onshore surveys

Please feel free to forward this meeting to any relevant parties from your organisation.

We would also like to ensure that the correct number of hard copies of the PEI are produced. As such we would like to request confirmation from each member of the technical review panels, as representatives of your various organisations, if you are happy with a digital version of the PEI or if you would prefer a hard copy. Alternatively, for those of you for whom the LVIA work is of key interest please could you also clarify if you would like a hard copy of the photomontages, but digital versions of the wider PEI.

Kind Regards,  
Sammy



## ONSHORE BIODIVERSITY MEETING MINUTES (TELECONFERENCE AND FACE TO FACE)

**MEETING ORGANISER:** VATTENFALL WIND POWER LTD

**ATTENDEES:** SEAN LEAKE (GOBE CONSULTANTS) (SL)  
 DUNCAN WATSON (SLR) (DW)  
 DANIEL BATES (VATTENFALL) (DB)  
 WILL HUTCHINSON (NATURAL ENGLAND) (WH)  
 HELEN FORSTER (KENT COUNTY COUNCIL – BIODIVERSITY) (HF)  
 NICK DELANEY (DOVER DISTRICT COUNCIL) (ND)

**APOLOGIES/MEMBER NOT REQUIRED FOR PARTICULAR MEETING:** HEATHER TWIZELL (NE); HANNAH CLEMENT (KCC); CHRISTINA RELF (NE) IAIN LIVINGSTONE (THANET DISTRICT COUNCIL); NATHAN COUGHLAN (KCC); HELEN JOHNSON (TDC); LUCINDA ROACH (DDC); DORA QUERIDO (RSPB); KATE PHILLIPS (KCC)

Agenda item	Topic for discussion	
1	Welcome and Introduction	
2	Project update	
3	Baseline data characterisation (onshore biodiversity – phase 1/NVC)	
4	Baseline data characterisation (onshore biodiversity – terrestrial invertebrates)	
5	Baseline data characterisation (onshore biodiversity – terrestrial amphibians)	
6	Baseline data characterisation (onshore biodiversity – reptiles)	
7	Baseline data characterisation (onshore biodiversity – birds)	
8	Baseline data characterisation (onshore biodiversity – mammals)	
9	S42 consultation responses	
10	AOB	
Notes & Actions	Notes	Action
1	<p><b>Welcome and Introduction</b>            SL thanked everyone for their time and outlined the proposed agenda for the meeting including a specific particular focus on the characterisation studies undertaken for the onshore biodiversity topic area, and the S42 consultation responses.</p> <p>A presentation was circulated prior to the call via email. This was referred to throughout the teleconference.</p>	n/a
2	<p><b>Project update</b>            SL thanked everyone for the S42 consultation responses received and confirmed that there were common themes with implications for the project design that have been taken into account.</p>	n/a

	<p>The primary area of design that has been considered is the landfall for the project which whilst still under development has resulted in a number of design changes, namely:</p> <ul style="list-style-type: none"> <li>• Crossing of Nemo has been discounted</li> <li>• The larger of the two landfall/sea wall extensions has also been discounted.</li> <li>• Trenching within the Pegwell Bay Country Park (PBCP) is being introduced, with site investigation work planned to inform this.</li> </ul> <p>The current project design is therefore to consider either trenching or above ground in the PBCP, with a reduced amendment to the sea wall retained for the above ground option.</p> <p>WH asked for confirmation of the dimensions of the sea wall.</p> <p>SL referred to a slide detailing that the maximum design scenario for the sea wall extension at the current time is 18.5 m.</p> <p>SL then walked through the remaining RLB and highlighted that the area of the RLB at Richborough Port had been extended to allow for the current user of the substation to be moved from the current northern area of hardstanding to the southern area of hard standing.</p> <p>In discussing Richborough Energy Park, and the retention of all routes within the area due to uncertainty in the final National Grid layouts, DW discussed the availability of ecological data for REP.</p> <p>HF confirmed that a number of studies and mitigation measures existed.</p> <p>DW confirmed that a list could be provided of the data that is already held, but if KCC could confirm it is up to date that would be helpful.</p> <p>DW also confirmed that the project is currently seeking access.</p>	<p>DW to circulate list of available data sources</p>
<p>3</p>	<p><b>Onshore biodiversity updates – phase 1/NVC</b></p> <p>DW confirmed that due to a change in the EIA delivery team SLR would be responsible for all onshore biodiversity work inclusive of the technical lead for the review panel.</p> <p>DW went on to note that there were a number of gaps in the data presented at PEIR and that the primary focus was to ensure that these gaps were addressed prior to submission of the application where possible.</p> <p>Proposal is to fill in the primary gaps at REP either through reference to existing reports and to arrange a further walkover of the site if possible.</p> <p>DW noted that there were no comments of note with regards phase 1 survey data in the S42 responses, and that the remaining gaps were low risk.</p> <p>ND asked what the situation was in the Stonelees nature reserve.</p> <p>DW confirmed that Stonelees had full coverage.</p> <p>DW confirmed that the areas of focus for the NVC were within the RLB, in the PBCP and Stonelees as the remaining areas were all improved. The areas in the PBCP were nothing of note, and the areas in Stonelees were open ground communities with a small area Highland cattle grazing and Natterjack toad.</p> <p>HF sought confirmation that the decision to undertake was NVC in the RLB was made after a walkover.</p> <p>DW confirmed that the phase 1 was not available at the time of the NVC survey so a walkover was undertaken to inform, and that the results of the phase 1 and walkover correspond.</p> <p>DW confirmed that the NVC survey report would be distributed for review by the technical review panel members.</p>	<p>DW/SL to circulate NVC survey report</p>
<p>4</p>	<p><b>Onshore biodiversity updates – terrestrial invertebrates)</b></p>	

	<p>DW confirmed that PBCP and Stonelees and PBCP were covered.</p> <p>DW confirmed that existing REP data for invertebrates is good, with other areas of hardstanding being of lower importance but noted that the area of hardstanding south of the substation was introduced later.</p> <p>DW confirmed that 4 nationally scarce/rare species were found which is to be expected.</p> <p>DW noted that there was just a single survey undertaken which has limitations but that this would not increase importance to county level, and would not materially affect the EIA or mitigation.</p> <p>DW confirmed that everything within PBCP was likely to be widespread, and that works in Stonelees had a very low chance of affecting microhabitats.</p> <p>WH asked for confirmation if further survey would shore up results.</p> <p>DW confirmed that whilst it would shore them up, it would not be expected to materially change the results or mitigation.</p> <p>WH requested confirmation that whilst the PEIR confirmed that further surveys would be ongoing the Project now feel further survey is unnecessary.</p> <p>DW confirmed that if permanent habitat loss was a risk surveys could continue the project is considered to be low risk and there is therefore enough data</p> <p>ND confirmed that there have been occasions of higher risk species and as such would recommend seeking other data such as for the Nemo project.</p> <p>DW confirmed that an entomologist was undertaking a detailed review against the habitats present to provide a risk review with 6 or 7 species that have the potential to be present from the Ramsar listing.</p> <p>WH suggested that Phil Williamson be contacted about further invertebrate data.</p> <p>WH and ND confirmed that a desk based approach would be sufficient but suggested also looking at the Kent field records.</p> <p>HF requested that KMBRC be contacted, if they hadn't already.</p> <p>DW confirmed that a request was in to see the full data search.</p> <p>HF asked if further surveys could be undertaken which could be as part of the [pre-construction baseline and inform the characterisation.</p> <p>DW confirmed that a baseline would be collected in 2019 but a further survey this year could inform mitigation if necessary.</p>	
<p>5</p>	<p><b>Onshore biodiversity updates – terrestrial amphibians</b></p> <p>DW provided an overview of Natterjack Toads (NT), highlighting that they were reintroduced about 15 years ago into the Stonelees reserve into ephemeral pools which were built for the purpose.</p> <p>DW went on to confirm that surveys in 2014 confirm presence, but without spawn strings. DW confirmed that we have a subsequent data gap, although recognised that there is a longstanding request with KWT.</p> <p>DW also noted that Nemo have put in mitigation and assumed trapping under licence. DW asked if there was any further information available.</p> <p>ND confirmed that DDC do not have any records</p> <p>HF confirmed that KCC have nothing</p> <p>WH took an action to discuss with the Natural England licensing team.</p> <p>DB asked if no data were available what would the approach be</p> <p>DW confirmed that a licence application could be made following a similar approach to that of Nemo. DW also confirmed that there would</p>	<p>WH to inquire about natterjack toad records with the Natural England licensing team.</p>

	<p>be interaction with the NT field and as such there is a need to consider replacement of the ponds, but there is a need for data to underpin this.</p> <p><b>GCN</b></p> <p>DW confirmed that there was a comprehensive study undertaken but that there were 2 waterbodies within 250m which required water/eDNA samples.</p> <p>HF highlighted that there appeared to be waterbodies in Stonelees that were missing from subsequent reports. DW confirmed that these were ephemeral and in association with the NT field as a result of this.</p>	
6	<p><b>Onshore biodiversity updates – reptiles</b></p> <p>DW confirmed that a reptile characterisation report would be issued shortly for review. DW then summarised the findings, highlighting that there were plenty of common lizard, a good population in PBCB, but low elsewhere. All surveys were considered optimal and that there is further good information available for REP.</p> <p>DW confirmed that no translocation was considered necessary, simple management with an ECoW would be adequate due to the temporary nature of the impacts.</p> <p>ND highlighted that screening in the north of the substation site could result in lost habitat.</p> <p>DW agreed but noted that any screening at this location would be on the ‘right’ side to leave suitable habitat, but that some enhancement could be considered and captured in the LEMP.</p>	DW/SL to issue reptile report for review
7	<p><b>Onshore biodiversity updates – birds</b></p> <p>DW confirmed that extensive breeding bird surveys had been undertaken with good data available for the project and REP data where necessary so no further data were considered necessary. DW confirmed that there were no S42 responses with this regard.</p> <p>WH asked for confirmation of any mitigation being required.</p> <p>DW confirmed that the ES chapter would be paired down compared with the PEEIR to ensure that clear measures were identified where necessary, but that generally the risks were considered low with an ECoW acting as primary mitigation.</p> <p>Non</p>	
8	<b>Onshore biodiversity updates – mammals</b>	
9	<b>S42 consultation responses</b>	
10	<b>AOB</b>	

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## LANDSCAPE AND ECOLOGICAL MANAGEMENT PLAN MEETING MINUTES

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**MEETING ORGANISER:** VATTENFALL WIND POWER LTD

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**DATE** 19<sup>TH</sup> APRIL 2018

**ATTENDEES:** SEAN LEAKE (GOBE CONSULTANTS)  
SAMMY MULLAN (GOBE CONSULTANTS)  
HANNAH CLEMENTS (KENT COUNTY COUNCIL)  
KATE PHILLIPS (KENT COUNTY COUNCIL)  
NICK GILL (KENT COUNTY COUNCIL)  
DAN BATES (VATTENFALL)  
DUNCAN WATSON (SLR CONSULTING)  
STUART CARGILL (OPITIMISED ENVIRONMENTS)  
REBECCA FRIAR (GEN2 PROPERTY LTD)

**APOLOGIES/MEMBER NOT REQUIRED FOR PARTICULAR MEETING:** N/A

Agenda item	Topic for discussion	
1	Project Update (Post-PEIR) - Programme	
2	Project Update - RLB	
3	Site Investigations	
4	Ecological Surveys	
5	Landscape Ecological Management Plan (LEMP)	
6	Reinstatement	
7	Species	
8	Enhancements	
9	Business Impacts	
Notes & Actions	Notes	Action
1	<p><b><i>Project Update (Post-PEIR) - Programme</i></b></p> <p>SL presented the indicative programme of the project. DCO is anticipated to be submitted at the end of June. Drafting of the application (prior to print) will be complete end of May. The Landscape and Ecological Management Plan (LEMP) is an evolving process and will continue to evolve beyond submission. An outline LEMP will be submitted with the application.</p> <p>All presented dates are subject to the award of Contracts for Difference.</p>	<p>SM to provide a copy of the presentation with the minutes. – provided 27<sup>th</sup> April.</p>
2	<p><b>Project Update - RLB</b></p> <p><i>Array</i> Up to 34 Wind Turbine Generators (WTGs) maintaining the same foundations types as PEIR will be taken forward in the application. The array Red Line Boundary (RLB) has evolved based on S42 comments - primarily from Shipping and Navigation. The final decision of the array RLB will be made in the coming weeks but likely to be that presented in the slides.</p> <p><i>Offshore Export Cable Corridor</i> The landfall RLB has been refined since PEIR but remains largely unchanged. There will be an area around the approaches of Ramsgate Harbour where no cables/infrastructure will be placed but will be maintained within the RLB to allow works, such as anchor handling.</p> <p><i>Onshore Cable Corridor</i> SL presented a comparison between the PEIR RLB (purple) and the RLB (red line) to be assessed in the Environmental Statement (ES). The larger landfall extension option, in PEIR, has been removed, i.e. there will not be a Transition Joint Bay (TJB) in the saltmarsh.</p> <p>The cable route Option to cut into Sandwich Road has been dropped based on engineering constraints and the received S42 consultation.</p>	

	<p>There will be no interaction (for infrastructure or access) with the carpark in Pegwell Bay Country Park (PBCP). Therefore, the works will be further from the play area than proposed in PEIR.</p> <p>The RLB has been reduced in PBCP and Stonelees Nature Reserve (NR). It has been extended in the Bay Point Club to align with the land parcel boundaries. Access into the Bay Point Club has been maintained.</p> <p>The existing access into the substation location has been removed from the RLB. The RLB has been extended in the proposed substation area to enable the relocation of the existing tenants. No works will be undertaken in this area. The RLB has been clipped to the land parcels.</p> <p>The routes within REP are uncertain but on-going consultation is being held with National Grid, Nemo and other tenants.</p> <p><i>Landfall</i></p> <p>Three options for landfall are being assessed and presented within the ES, and to be taken forwards in the application.</p> <p>DB confirmed that any soil removed during trenching of PBCP will be disposed of appropriately, i.e. it will not be reinstated.</p> <p>Horizontal Directional Drilling (HDD) (Option 1) – The proposed drills would be from the country park into the intertidal area. This will remove interaction with the sea wall and the saltmarsh. The cable would be trenched onwards in PBCP. A construction compound would be required for the drilling equipment and the works.</p> <p>Option 2 – Two extensions of the sea defences were proposed in PEIR – one larger (TJBs in the saltmarsh) or a smaller one with (TJBs on the country park). The smaller sea wall extension has been retained for the application. The dashed area indicates where the TJBs could be located and subject to on-going design. The cables would be laid in a berm as per assessment in the PEIR. The figure illustrates areas where full access will be achieved across the berm (a 1:12 gradient has been assessed within the ES). The green dashed area indicates possible location of the seawall extension. A temporary construction will be required.</p> <p>Both Options 2 and 3 will require a cofferdam to prevent contamination risks.</p> <p>Option 3 – If HDD is not possible, such as if it would create contamination pathways, a trenched option is proposed through the sea wall. The TJB and cables would be buried within PBCP.</p> <p>KP sought clarification that the green area for construction compound is the proposed area. SL confirmed and highlighted the two access routes (to be a one way system) into the compound. The compound would be heras fenced and likely to be hardstanding or Geotech mats. This would be designed/confirmed post-consent.</p>	
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	<p>The cable installation through Stonelees will be trenched, as per PEIR, and soil will be reinstated as soon as reasonably practical. SL presented the onwards cable route and the substation.</p>	
<p><b>3</b></p>	<p><b>Site Investigations</b></p> <p>The findings of the SI works will report during examination, which will enable a decision of the three landfall and onwards cable options. VFs preference is for assets to be buried. The SI works are currently being procured.</p> <p>SI works are anticipated to be undertaken July/June. KP noted that it is a peak visitor time. KP highlighted that KCC and VF will need to work closely to ensure safety and mitigate impacts on the customers of the PBCP. Information/ notice boards will be required.</p> <p>NG – requested a method statement for the SI works, this should include details on waste disposal and backfilling.</p> <p>RF noted that a permit will be required for the SI works. Louis Grover (LG) is the senior ranger, and would act as a point of contact for practical/ logistics SI works on site.</p> <p>VF’s assumption is that a permit would need to be secured from KWT to undertake the SI works in PBCP.</p>	<p>DB to provide further information on the method statement, programme and duration of works. [Post meeting note – information to be provided post-application submission].</p> <p>DB to contact land agent (for VF) to begin discussions with KCC for access and permits for SI works. [Post meeting note – VWPL’s land agents will be contacting KCC via a letter within the next few weeks].</p>
<p><b>4</b></p>	<p><b>Ecological Surveys</b></p> <p>Seasonal sensitive surveys. Our understanding is that a permit is required to undertake these surveys in the PBCP.</p> <p><i>KP raised concerns over the cable route selection process and that the route is through an ecologically sensitive area.</i></p> <p>KP noted that if the route were to go ahead then it would be their (KCC’s) preference to have all infrastructure to be buried in the PBCP. This is noting that they are objecting to the current route.</p> <p>DB noted that the application is proceeding with the route [presented in the slides].</p> <p><i>SL noted that engaging in meetings and providing land access does not infer endorsement of the project (or the route selection).</i></p> <p>DW has been engaged with consultation with NE over further ecological surveys (for great crested newt and bat activity). DW does not believe that the outstanding surveys are critical to the assessment, although it would be preferable to complete them, both in terms of informing the assessment and in avoiding discussion over lack of access in examination.</p>	<p>KCC to provide a copy of the management plan for PBCP – provided 17/5/18.</p>



	<p><i>KP highlighted further site selection information is required to provide understanding of how the final route has been selected.</i></p> <p>The site management plans are closely linked between the KCC, KWT and the designations, to ensure all plans are aligned with the NNR future visions. DW requested a copy of the site management plan for PBCP to inform the development of the outline LEMP.</p> <p>RF noted that KWT are the tenants of KCC within a small part of the PBCP.</p>	
<p>5</p>	<p><b>Landscape Ecological Management Plan (LEMP)</b></p> <p>VF intend to submit an outline LEMP with the application. A more detailed LEMP would then be produced and implemented post-consent. The outline LEMP will provide an overview of the principles as specifics cannot be provided until more detailed design has been undertaken.</p> <p>A detailed LEMP would form a DCO requirement, for approval by TDC/DDC, in consultation with other bodies as appropriate (which can include KCC) prior to construction. This will be informed by the outline LEMP provided in the application.</p> <p>VF seek to understand the KCC vision/ long-term plan of PBCP and whether there are any strong preferences or <i>bêtes noires</i> in terms of landscape and ecological mitigation and enhancements.</p> <p>The outline LEMP will provide mitigation options separately for a berm and buried infrastructure, on the basis that both options are still possible at this stage. The outline LEMP will include the following sections:</p> <ul style="list-style-type: none"> <li>• Restoration and re-instatement proposals;</li> <li>• Screening proposals at the substation;</li> <li>• Protected and Notable species mitigation;</li> <li>• Landscape and ecological enhancements; and</li> <li>• Monitoring.</li> </ul> <p>A separate Code of Construction Practice (CoCP) will cover dust, noise etc. and will be provided in the application.</p> <p>KP noted that grazing may not occur when construction is occurring and other methods would be needed to manage the land and there may be a loss of grazier business long-term. A discussion was held about the possible issues of crossing the Nemo berm to get grazing animals in. It is thought that grazing didn't occur during Nemo's construction. The gradient of berms should be considered in relation to suitability for grazing.</p> <p>An access management plan will be developed, by VF, to ensure there will be no park closures and uses are maintained use (such as park run).</p> <p>KP raised concern over the narrow path between the construction compound (heras fencing) and the Nemo berm over a prolonged period</p>	<p>Outline LEMP to consider the maintenance of existing habitat management regimes, through grazing or alternative management (e.g. cutting).</p> <p>VF to provide a list/ overview of questions on which KCC input is requested. KP to seek opinion/ discuss the provided information with relevant parties and respond. Further suggestions are also welcomed [attached to end of minutes].</p> <p>The outline LEMP to include that the berm design must be sympathetic to the existing Nemo berm where they run in parallel.</p> <p>The outline LEMP to include that the berm would need to be capped in nutrient poor substrate to</p>

	<p>of time. This would reduce the enjoyment of users despite maintaining access.</p> <p>KP stated that Nemo is not considered best practice and should be used for lessons learnt.</p> <p>In the section where the Thanet Extension cable would run parallel to the Nemo cable KP wouldn't want an 'M' of two berms or one high peak. A gentle gradient and usable space would be needed.</p> <p>DB clarified that where Thanet Extension runs parallel to it the RLB includes the centre line of the Nemo berm, to allow the potential of filling between two berms, noting agreements would be required.</p> <p>KP considered the cumulative effect of multiple berms is more significant than the installation of the Nemo berm. There may be possible compartmentalisation of the PBCP. The project seeks to reduce this through low gradients on paths.</p> <p>DW – if required the Outline LEMP will contain a number of options but the project's preference would be to discount (KCC's) non-preferred options at this stage, if possible.</p> <p>Berm substrate options could include–</p> <ul style="list-style-type: none"> <li>• Chalk</li> <li>• 'ameliorated' chalk – to speed up the establishment.</li> <li>• Neutral sub-soil</li> </ul> <p><i>Agreement was reached that restoration of the berm should aim for species rich grassland using a nutrient poor substrate. KP was unable to provide a definitive KCC view on preferred substrate at this stage.</i></p> <p>DW stated that a berm could either be seeded or left to colonise naturally. DW noted that natural colonisation can take time but in time may result in a more natural vegetation community (of greater conservation value). The project has no strong preference and would like a steer from KCC as landowners as to their preference.</p> <p>PBCP is advertised as low flat coastal area and suitable for customers with accessibility requirements. KCC would like this to be maintained.</p> <p>KP highlighted that additional work/cost/resources/operations may be required on an on-going basis depending on habitat/land/distance between the two berms and effects on grazing compartments.</p> <p><i>Note: KP noted that she is not directly involved in the day-to-day management of the site and will need to discuss with the ranger team before providing comments on the different options. It was agreed that VF would provide a list of questions on which they would like input from KCC in respect of the Outline LEMP.</i></p>	<p>promote plant species diversity.</p> <p>The Tourism and Recreational (T&amp;R) chapter will present a plan showing all informal paths throughout the PBCP.</p>
6	<b>Reinstatement (or trenching)</b>	

	<p>The project assumes that KCC’s preference would be grassland based communities rather than scrub and trees? KP noted that generally she would prefer reinstatement to grassland which is consistent with the site being a coastal lowland. DW noted that reinstatement to trees and scrub would not be possible above the cables for operational reasons.</p> <p>Ephemeral pools within Stonelees – a small number might be within the route corridor, so the project is assuming that the features should be replaced elsewhere in the land parcel – to be discussed with KWT.</p> <p><i>Substation</i></p> <p>Propose woodland screening on the perimeter of the substation and habitat enhancement (open mosaic habitat for invertebrates).</p> <p>Screening tree types to be agreed but likely to be consistent with native and locally appropriate trees.</p> <p>Fencing – will be dependent on location of building and infrastructure.</p>	
7	<p><b>Species</b></p> <p>Species-specific mitigation measures will be described in the outline LEMP. Pre-construction survey and standard protection measures will be deployed and an Ecological Clerk of Works will be employed.</p> <p><i>Invertebrates</i> – Aim to manage habitat in the substation site. Species-specific mitigation and enhancement measures would also be employed in PBCP and Stonelees, if required. Further survey would be carried out post consent to determine detailed mitigation requirements.</p> <p><i>Birds</i> - Standard measures will be applied. Due to the presence of non-breeding birds – a seasonal restriction will be applied to works within the intertidal (Oct – Mar) and at the landfall. Screening would also be employed to avoid visual disturbance where required (within 250m of the intertidal). Signage may be used to discourage displaced visitors from walking over sand flats and an ECoW would monitor potential disturbance from displaced visitors and seek to discourage disturbance, if required.</p> <p><i>Other Species</i> – mitigation proposals were only covered briefly due to lack of time. Further details are provided in the slides.</p>	<p>KCC to ask biodiversity team to review the presentation slides and provide any initial comments.</p>
8	<p><b>Enhancements</b></p> <p>To be provided in the outline LEMP. Possible landscape enhancements were presented including path enhancements or building of a view point.</p> <p>VF would like more information to understand the aspirational vision of the park and obtain KCC preferences on potential enhancements.</p> <p>Enhancement works undertaken outside the RLB would need to be secured to ensure delivery. Side agreements could be used to secure to KCC satisfaction – contractual basis.</p>	

	<p>A request for KCC input in relation to potential enhancements to be included in list of questions to KCC.</p>	
<p>9</p>	<p><b>Business impacts</b></p> <p>The O&amp;M impacts is assessed the ES and associated impacts of maintenance. The project lifetime is assumed to be 30 years.</p> <p>KP queried where the assessment of the projects impact on the business of the park. SL – The T&amp;R chapter has been revised since PEIR and focusses on the PBCP as a receptor and considers the impact on the business. The chapter considers cumulative impacts with Nemo.</p> <p>The loss of income and opportunity will be difficult for VF to quantify. Following submission of the application, meetings with KCC will be held. VF’s preference is for practical solutions to be employed but compensation could also be discussed. This would need to be resolved prior to the end of the DCO process. [post meeting note: any compensation for business impacts would be picked up through the land agreement]</p> <p>KP highlighted close working would be required to ensure that visitor experience is maintained and continued income. Thanet Extension may affect investment decisions for the provision of additional visitor services – such as catering or seating areas. The recovery of business should also be considered.</p> <p>DB – VF would prefer to support KCC to achieve the aims, through a positive route, rather than preventing or hindering them.</p> <p>All plans in the park have to complement the NNR plans and visions.</p>	

## **OUTLINE LEMP – LIST OF ISSUES ON WHICH INITIAL COMMENTS REQUESTED**

### **Restoration and Reinstatement**

If an above-ground solution in the country park is unavoidable the overall aim for restoration of the berm would be the creation of species-rich grassland. The intention is for the Outline LEMP to retain a number of options for how exactly this would be done, with the detail to be agreed within the detailed LEMP, post consent. However, we would welcome initial views on the following issues so that certain options can either be promoted or discounted now, at the outline stage, if it is appropriate to do so.

- Choice of substrate, e.g. virgin chalk, ameliorated chalk or more neutral subsoil
- Whether to allow the berm to colonise naturally or augment vegetation establishment by seeding

If burial of cables within the country park is possible, we would welcome views on whether reinstated ground should be allowed to colonise naturally or whether seeding should be used to speed up establishment and potentially create a more diverse grassland community?

### **Mitigation for Protected or Notable Species**

VF would welcome comments on the proposed mitigation measures outlined in the slides tabled at the meeting.

### **Enhancements**

VF would welcome initial views on potential biodiversity and landscape enhancements within the country park, relevant and proportional to the effects of the project, which VF could contribute to. As raised at the meeting, some initial ideas include:

- Additional ponds / pools (outside the landfill area)
- Creation of reptile refugia / hibernacula
- Erection of bat and bird boxes
- Creation of small area of sacrificial crop (for seed-eating birds)
- Potential for viewing platforms on bund at existing path crossing points
- Potential for path improvements between landfill and compound
- Potential tree and scrub planting

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## OFFSHORE ARCHAEOLOGY MEETING AGENDA

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**MEETING ORGANISER:** VATTENFALL WIND POWER LTD

**ATTENDEES:** DR ANDREW BICKET (WA), STUART CHURCHLEY (HE)

**APPOLOGIES:** VANESSA EVANS KENT WILDLIFE TRUST

**PURPOSE OF MEETING:** EVIDENCE PLAN REVIEW PANEL KICK OFF MEETING TO DISCUSS THE TERMS OF REFERENCE, EVIDENCE PLAN PROCESS, AND INITIAL TECHNICAL DISCUSSIONS ON SCOPE AND NEXT STEP

**DATE & TIME & LOCATION:** MONDAY 28<sup>TH</sup> FEBRUARY 2017 1030-1630.  
VATTENFALL UK, 1 TUDOR STREET, LONDON. EC4 Y0AH. LILLGRUND MEETING ROOM.

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Agenda item	Topic for discussion	
1	Welcome and Introduction	
2	Overview of the project	
3	Overview of the EP process – purpose and aims, the process going forward	
4	Review Panel membership	
5	Review Panel breakout sessions	
6	AOB	
Notes & Actions	Notes	Action
1	SL provided chair role for the meeting. Round table introductions were made	n/a
2	<p>SL provided an update on the project including an update on the following key points</p> <ul style="list-style-type: none"> <li>• High level programme dates</li> <li>• PEI July 2017</li> <li>• Submission Jan 2018</li> <li>• Extension encompasses original site;</li> <li>• 34 x 8MW WTG as base case;</li> <li>• Monopiles preferred but included jackets with pin piles or suction caissons</li> </ul> <p>SL provided an overview of the 2 cable route options currently being considered; the northern route to Pegwell Bay and the southern route into Sandwich Bay. Options were maintained for scoping and a decision is currently being made following feedback from scoping and an ongoing appraisal process.</p>	n/a
3	SL provided an overview of the EP process including the purpose and the aims. It is essentially a collaborative process between Vattenfall and the stakeholders to establish robust data on which the HRA will be based. JDM highlighted that this EP process is seeking to agree the data and assessments for EIA	SL to provide ToR document and presentation with the minutes.

	<p>also as much of the data required for HRA will be relevant to EIA.</p> <p>The consultation undertaken as part of this process will be used to agree SoCG and ultimately this process seeks to streamline the application leaving only those items still to be agreed as a focus for the examination.</p> <p>SL highlighted that it is Vattenfall’s desire to get as many issues ID’d as possible and get to the point of agreement if possible. The EP process should be seen as useful process to follow and a very positive process, that provides all parties with the opportunity to consider the data and evidence underpinning the assessment at an early stage and to ensure as far as is possible that there is early consensus on key issues, and the adequacy of the information being used to address those issues and concerns.</p> <p>SL emphasised that Technical Review Panels are designed to build on data and discussions previously held, they are not intended to start from scratch.</p> <p>SL discussed the project and Evidence Plan programmes and encouraged feedback both from the stakeholders providing comments on the Terms of Reference document but also in discussing the needs and next steps in the particular Review Panels.</p> <p>SL outlined that documentation to be covered within meetings will be circulated in advance of meetings to allow for review (14 days); and that the expectation is that any documentation submitted for agreement that is not to be discussed at a particular meeting should be returned with comments in line with the 21 day review cycle unless otherwise agreed.</p> <p>SL introduced the consultation log concept as provided within the ToR which will be produced for each review panel. The log is designed to track areas of agreement and outstanding queries to be resolved for each topic area that the stakeholder(s) have an interest in.</p> <p>SL finally iterated that the project would welcome confirmation that the ToR document is accurate and appropriate, and welcomed feedback on the ToR. JW@EA highlighted that the ToR did not appear to be included in information provided. SL Agreed to provide alongside the presentation as requested by MA.</p>	
<p><b>4</b></p>	<p>SL gave an overview of the Roles and responsibilities as outlined in the ToR document before then describing the proposed Technical Review Panels and associated membership.</p> <p>It was highlighted that the Environment Agency need to be included across multiple topic areas and a coordinated approach would be needed to ensure EA interests across both onshore and offshore are adequately represented.</p> <p>The Membership was then discussed and agreed as highlighted on Slide 27 of 29 in the attached pdf of the introductory presentation.</p>	
<p><b>5</b></p>	<p>Breakout meeting for Archaeology and Cultural Heritage comprised WA, HE and representative on behalf of County</p>	<p>Confirm scope of marine geophysics</p>

	<p>Councils to discuss general approaches to the offshore assessment.</p> <p>Main focus of discussion was scope of marine geophysics assessment. Owing to the timescales and quantity of data, it is unlikely that the baseline technical report with full geophysics assessment will be complete for the PEI deadline (but shortly after). Discussed whether to submit DBA elements for DBA and then update with complete marine geophysics assessment when ready. Deemed acceptable rather than piecemeal submission and inefficient delivery.</p> <p>WA set out extent of marine study area from Mean High Water to extent of offshore array, overlapping with the onshore heritage assessment. No changes required to normal practice.</p> <p>Data audit of geophysics datasets will confirm 100% and suitable resolution for archaeological assessment. Scope of survey was reviewed by WA ahead of survey.</p>	<p>assessment once technical reports are available</p> <p>Provide completed technical baseline report to HE and relevant Local Authority Stakeholders on completion (rather than incomplete prior to PEI deadline). Likely due in mid-summer.</p>
6	<p>WA and HE discussed extent of Setting assessment and was agreed that onshore Consultant was best placed to undertake that assessment for onshore receptors (as is normal practice), and that scope for offshore receptors to have Setting impacts was not relevant (i.e. accidental wrecks don't have a inherent Setting as they are not there on purpose).</p> <p>Historic Seascape Characterisation (HSC) will be included in the offshore baseline as is our normal approach, based on existing regional reports.</p>	<p>Agreed that Setting assessment would comprise onshore receptors only and be undertaken by onshore Consultant.</p>
7	<p>WA set out approach to Transboundary factors and agreed with HE that transboundary factors would only comprise wrecks and other material of other Nations that is now located in UK waters.</p>	<p>N/A</p>
8	<p>Proximity of Goodwin Sands was discussed (i.e. not in particularly close proximity). Discussed that Seabed Processes assessment undertaken for Thanet Ext. would provide information on likelihood of indirect physical impacts. But, was judged unlikely. Normal approach would incorporate this.</p>	<p>Confirm potential for indirect physical effects upon seabed features of high archaeological potential in ES (e.g. sand banks).</p>



## Offshore Archaeology Meeting Minutes

Meeting Organiser: Wessex Archaeology  
 Attendees: Euan McNeill (WA), Andrea Hamel (WA), Stuart Churchley (HE)  
 Apologies: Chris Pater (HE)  
 Purpose of meeting: Progress update, discussion of methodologies  
 Date & Time: Friday, 7 July 2017, 10:00-11:00.  
 Location: Wessex Archaeology, Salisbury Office / Skype call

Agenda Item	Topic for discussion	
1	Progress update	
2	Integration of NEMO data	
3	Location of intertidal B-17	
4	Scoping report comments – specifically Settings Assessment in respect of offshore assets	
5	Any HE comments	
6	AOB arising	
	&	
Notes & Actions	Notes	Action
1	ATH and AEM provided an update on the project, including the following key points: <ul style="list-style-type: none"> <li>• Marine archaeology technical report and geophysics technical report almost complete</li> <li>• PEI in progress</li> </ul>	WA to finalise drafts for client.
2	ATH and AEM provided an update on the amendment to the cable route and integration of NEMO consenting geophysical survey data to fill gaps in coverage. The consenting dataset will be integrated, as the interpretation of the installation dataset is still ongoing. WA has worked on both projects, and therefore the interpretation will be consistent between the datasets.	n/a

	<p>WA identified that a gap in survey data coverage remains in the proposed cable route. WA recommend this area be covered through subsequent planned geophysical surveys. SC agreed this would be necessary.</p>	
3	<p>ATH and AEM provided an update on the location of the intertidal Boeing B-17 Second World War crash site. The NRHE position (UID 1602379) places it within a 1 km circular polygon within the proposed northern landfall study area. However the location provided by Elliott Smock, who surveyed the site at low tide when it was exposed in the 1990s, positions a relatively coherent site on Sandwich Flats, between the two potential landfalls, and therefore outside of the study area.</p> <p>AEM updated SC regarding the intertidal fieldwork that will be undertaken to confirm the location of the B-17 aircraft crash site.</p>	<p>WA to undertake intertidal walk-over survey July 25-26.</p> <p>Including the use of a metal detector.</p>
4	<p>Discussion of scoping comments. ATH and AEM discussed strategies and methodologies.</p> <p>The methodology for setting will follow <i>The Setting of Heritage Assets: Historic Environment Good Practice Advice in Planning 3</i> (Historic England, 2015). Setting will be assessed based on the following criteria:</p> <ul style="list-style-type: none"> <li>• Physical surroundings and Views – which includes the physical presence of the asset on the seabed, its surroundings and relationship with other assets and navigational hazards in the immediate area; and</li> <li>• Non-visual factors – including the way the asset is appreciated in a broader historical, artistic and intellectual capacity, and the asset's associations.</li> </ul> <p>Geophysical anomalies of possible archaeological interest, unidentified wrecks and as yet undiscovered features will not be assessed for setting, unless further information becomes available.</p> <p>SC noted importance to consider cumulative effects, due to the large scale of developments in the wider marine area.</p>	<p>WA will incorporate the methodologies, assessments, and results in the PEI.</p>

	With regards to transboundary effects, a number of factors will be considered, including nationality of vessel/aircraft, nationality of crew, use/ voyages/ international ports of call, and so forth. Seabed prehistory assets will also be included as they pre-date the international borders. It was agreed that the very nature of offshore archaeological assets often have an international component, and interest in the assets can be beyond borders.	
5	SC enquired about delivery dates for PEI and technical reports	AEM to confirm with GoBe.
6	AOB arising	n/a



Offshore Archaeology Meeting Minutes

Meeting Organiser: Wessex Archaeology  
 Attendees: Chris Pater (HE), Stuart Churchley (HE), Euan McNeill (WA), Andrea Hamel (WA), Louise Tizzard (WA), Sammy Mullan (GoBe)  
 Apologies: Chris Pater (HE)  
 Purpose of meeting: Discussion of PEIR comments  
 Date & Time: Wednesday, 31 January, 2018, 12:30-14:30  
 Location: Wessex Archaeology, Salisbury Office / Skype call

Agenda Item	Topic for discussion	
1	Introduction	
2	HE comments on PEIR regarding geoarchaeological work	
3	HE comment on PEIR regarding Pegwell Bay survey	
4	AOB arising	
Notes & Actions	Notes	Action
1	ATH and AEM explained that the meeting is being held in response to HE's request in the PEIR comments for a liaison meeting between HE and WA post PEIR, to ensure objectives are maintained and outcomes are achieved such that a suitable draft or outline WSI is prepared.	N/A
2	AEM provided update on status of geotechnical work undertaken so far, comprising a limited amount of vibrocoring for engineering purposes. The WSI will include recommendations for archaeological considerations to be included at the planning stages of any further geotechnical work and subsequent storage. It will also include information about the availability of material already recovered.  HE requested to review the outline draft WSI prior to submission of the ES. SM mentioned the likely submission will be June, not April as	WA to ensure WSI includes recommendations for archaeological considerations to be included at the planning stages of any further geotechnical work and subsequent storage. The WSI will also include details of availability of past material.  SM to confirm programme with Sean Leake.

	<p>previously planned.</p> <p>HE indicated concerns with regards to the adequacy of geotechnical works. AEM noted that with many past projects, these concerns will be addressed through the WSI, with the potential to review additional data post consent. This process is enshrined in COWRIE guidelines and the Model Clauses document. A considerable amount of geophysical work has been undertaken in the area, and combined with previous work for TOWF, therefore we have a relatively good understanding of the palaeogeography of area.</p> <p>SC provides a link to the HE Science Advisor, and noted that geotechnical work would need to reach objectives, and follow the staged approach – through analysis to publication (if warranted). There is a need for dedicated archaeological cores. LT noted that if consent is granted, the WSI would allow the retained archaeologist to develop suitable methodologies, for example working with geotechnical contractor, and ensuring cores of archaeological potential can undergo archaeological assessment first. The key is communication between archaeologists and geotechnical contractors. SC noted there can be an element of risk with regards to communication due to changes of retained archaeologist, consultants, geotechnical contractors, and/ or sub-contractors. The WSI needs to minimise risk, for example by requesting dedicated cores, which would alleviate the problem of communication break down.</p> <p>HE suggested potential for an archaeologist on-board during geotechnical survey, if needed. This would provide HE reassurance of an accurate and acceptable level of work being undertaken. AEM noted this would be of value if cores are being reviewed on-board, however if cores are recovered to lab facilities onshore, this would not be necessary. Material needs to be retrieved so whole sequence can be sampled and reviewed.</p> <p>HE noted WSI needs to be specific, with</p>	<p>WA to ensure WSI complies with COWRIE and Model Clauses, and provides a summary of understanding so far.</p> <p>WA to ensure WSI provides details regarding input into geotechnical surveys and archaeological assessment of geotechnical data, through a staged approach</p> <p>WA will ensure WSI is targeted, focussed, robust and unambiguous to minimise risk, for example detailing recommended options for geotechnical survey. It will also include details about what data has been obtained and what has been secured. It will clearly state what is required for recovered cores.</p> <p>WA to ensure WSI provides clarity as to whether review of cores is to be undertaken offshore or onshore, and what the archaeological requirements would be. The WSI will note the key is early communication.</p> <p>WA to ensure WSI is specific with regards to survey</p>
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	regards to VCs or BHs	methodologies
3	<p>In PEIR comments, HE has requested a complete and thorough survey of Pegwell Bay, where no geophysical survey data presently exists.</p> <p>LT noted that some of the area has been covered by 2014 data, and this is reflected in the geophysical anomalies, however the figure illustrating coverage will be amended. Any areas still outstanding would likely be covered by future surveys, for example the UXO survey.</p> <p>Any future post-consent survey coverage will be dictated and confined by areas of potential impact from construction activities.</p>	<p>WA to amend figure in technical report and to ensure WSI refers to understanding of conditions in the area, and which areas warrant further archaeological study.</p>
4	<p>AoB:</p>	
4a	<p>HE recommended that the foreshore/intertidal work regarding geophysics/geotechnical work undertaken by offshore and onshore archaeologists should be joined up. In addition, CP noted that WA should liaison with terrestrial stakeholders and academics regarding the landfall. For example the University of Leicester is part of an additional steering group. SM recommended Simon Mason (Kent County Council Principal Archaeological Officer).</p>	<p>WA to ensure WSI includes potential for stakeholder groups.</p>
4b	<p>CP asked about opportunity for a workshop prior to the June submission. SM noted that a meeting could be planned. CP noted face-to-face meeting would be preferable, but teleconference if necessary. The meeting would rapidly identify any areas of non-agreement.</p>	<p>AEM to facilitate meeting</p> <p>SC to get in touch with Jane Corcoran (HE Science Advisor) regarding meeting.</p>

**From:** [Churchley, Stuart](#)  
**To:** [Andrea Hamel](#)  
**Cc:** [Euan McNeill](#)  
**Subject:** RE: Thanet Extension: Arch EP meeting  
**Date:** 08 March 2018 13:40:31

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Hi Andrea,

Thanks again for this update. Sincere apologies for the delay in a final response. In discussion with our Science Advisor, Jane Corcoran has said the following:

“On the face of it I agree impact doesn’t seem to be great. However, I’m not sure where / what is proposed for on-shore and I am aware that Simon Mason is very interested in pulling together an overall deposit model / research agenda for the Wantsum Channel area, as a lot of bitty work has been done here. Perhaps it would be worth speaking with him before a face to face meeting is definitely rejected?

I can see the sense in the point implied below that the windfarm area is likely to be separated from the landfall by the Chalk ridge extending out from the Isle of Thanet, so making them two distinctly separate areas in terms of archaeological interest. The deeper channel-facing Pleistocene palaeochannels on the windfarm side and the more recent evolution of the Wantsum Channel on the other. For Pegwell Bay it is not so much the Palaeolithic that is of interest, as the changing historic coastline. Andrea’s email below suggests we do not yet know much about deposit survival in the immediate off-shore area and I think this does still need to be clarified and compared with sequences from further inland within the Wantsum Channel area...”

Please get in touch if there is anything else you would like to discuss.

Best regards  
Stuart

Stuart Churchley  
Marine Planning Archaeological Officer  
Planning Group

Historic England  
Eastgate Court | 195-205 High Street | Guildford | GU1 3EH



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**From:** Andrea Hamel [REDACTED]  
**Sent:** 19 February 2018 14:01  
**To:** Churchley, Stuart  
**Cc:** Euan McNeill  
**Subject:** Thanet Extension: Arch EP meeting

Hi Stuart,

I was on holidays last week, so I wasn't able to follow up with you, but I was wondering if Historic England had any comments on my email (below), and if you would like me to continue with setting up a meeting to further discuss the approaches to palaeogeographic assessment?

All the best,

Andrea

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**From:** Andrea Hamel  
**Sent:** 09 February 2018 14:30  
**To:** 'Sammy Mullan' [REDACTED]  
[REDACTED] 'Churchley, Stuart'  
[REDACTED]  
**Cc:** 'Mabbitt, John' [REDACTED] David Howell [REDACTED]  
Louise Tizzard [REDACTED] Euan McNeill [REDACTED]  
**Subject:** Thanet Extension: Arch EP meeting

Dear Chris and Stuart,

Following on from our conference call on 31 January, and in order to address the actions for items 4a and 4b from the minutes (regarding the possibility to set up a workshop to discuss a joined-up approach to the foreshore/ intertidal work regarding geophysics/ geotechnical work undertaken by offshore and onshore archaeologists), I have been in contact with John Mabbitt (WoodPLC). Although



my initial contact was to determine potential availability for a future meeting, John expressed an interest in having a brief discussion prior to the establishment of a larger meeting. Therefore, this morning we had a short call to discuss how to move forwards.

While we understand that in many locations around the coast, a joined-up approach has been particularly beneficial, and we are keen to ensure linkages between the onshore and offshore topics, the discussion suggested that there may be limitations to the extent of collaborative potential with regards to geoarchaeological assessment in Pegwell Bay.

Based on the current project design information, where the majority of terrestrial works will be limited to trenching depths of 1-2 m, it appears that there will be very limited (if any) adverse effects on deposits of geoarchaeological significance onshore, as previous investigations have indicated that at these depths sediments will comprise undifferentiated silt of medieval and post-medieval accumulation in the Wantsum Channel. Therefore there would be limited value in undertaking comprehensive geotechnical investigations at these depths. Work undertaken for Nemo Link did not provide interesting results, and the 1 m deep trenches revealed medieval silt. It should be noted that works undertaken at the Richborough connection, not far from the study area, did provide interesting results, however these were from boreholes further from the landfall, and identified Pleistocene deposits c. 8-10 m below ground level, suggesting the presence of isolated 'islands' of deposits. These were overlain by beach sands approx. 4-5m thick and mudflat/estuarine deposits, again 4-5m thick which were identified as of limited archaeological potential.

There are only a couple of possibilities of deeper disturbance onshore for Thanet Extension, and these are limited to the substation piles and the landfall cofferdam, however although the depth of the cofferdam impact has not been confirmed, it will likely be limited to silt and modern landfill. The substation piles provide an opportunity for geotechnical investigation, however it will likely provide too small of a sample to illustrate what is typical across the area, and therefore it would not provide a robust basis for a deposit model.

There are similar difficulties offshore, where, although there are interesting results from geotechnical investigations within the array area, much of the cable corridor comprises chalk with a thin layer of modern seabed over it.

Although there is presently a data gap in Pegwell Bay due to the difficulties of acquiring geophysical data in the shallow waters, it is possible that much of the sediment will comprise reworked material. On land, there have been many recent changes to the coast, for example Second World War aerial photographs of the area show defences, mudflats and water at high tide, however much of that area has now become saltmarsh.

It appears that rather than a joined up offshore/ onshore landscape, there is instead a divide, where each side represents very separate instances, divided not only by distance but also by millenia. Offshore there is the buried landscape of the English Channel, but onshore sediments relate to accumulation in the Wantsum Channel.

Due to this divide, and the limited impact onshore, it is difficult to justify extensive geoarchaeological work on the terrestrial side. However, further archaeological assessment could include a review of data from nearby developments. The onshore ES chapter will refer to recent archaeological work for the Nemo Link and Richborough Connections, as well as the archaeological monitoring of the Thanet Offshore cable connection to inform any assessment of effects on deposits of geoarchaeological significance, and these reports will be made available to the offshore consultants where these are in the public domain. The offshore consultants will review historic borehole data to identify whether relevant borehole records exist for the Pegwell Bay hoverport and development at Stonar; where these exist, these will be supplied to the onshore consultant for reference.

If you have any questions or concerns, or if it is considered that a face-to-face meeting or conference call would still be of value, please do not hesitate to contact me, as I would be more than happy to facilitate it, and to include KCC, Rochford District Council, GoBe, VWPL and the MMO in our discussions.

All the best,

Andrea

**Andrea Hamel, BA, MA, PCifA**  
Senior Marine Archaeologist

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**Wessex Archaeology**

Portway House, Old Sarum Park, Salisbury, Wiltshire SP4 6EB

[REDACTED]

[REDACTED]

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## ONSHORE HISTORIC ENVIRONMENT MEETING AGENDA

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**MEETING ORGANISER:** VATTENFALL WIND POWER LTD

**ATTENDEES:** OLIVER GARDNER, AMEC FOSTER WHEELER  
CHRIS PATER, HISTORIC ENGLAND

**APPOLOGIES:** JOHN MABBITT, AMEC FOSTR WHEELER  
TOM FOXALL, HISTORIC ENGLAND

**PURPOSE OF MEETING:** EVIDENCE PLAN REVIEW PANEL KICK OFF MEETING TO DISCUSS THE TERMS OF REFERENCE, EVIDENCE PLAN PROCESS, AND INITIAL TECHNICAL DISCUSSIONS ON SCOPE AND NEXT STEP

**DATE & TIME & LOCATION:** MONDAY 27<sup>TH</sup> FEBRUARY 2017 1300-1630.  
DISCOVERY PARK.

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Agenda item	Topic for discussion	
1	Welcome and Introduction	
2	Overview of the project	
3	Overview of the EP process – purpose and aims, the process going forward	
4	Review Panel membership	
5	Review Panel breakout sessions	
6	AOB	
Notes & Actions	Notes	Action
1	SL provided chair role for the meeting. Round table introductions were made	n/a
2	<p>SL provided an update on the project including an update on the following key points</p> <ul style="list-style-type: none"> <li>• High level programme dates</li> <li>• PEI July 2017</li> <li>• Submission Jan 2018</li> <li>• Extension encompasses original site;</li> <li>• 34 x 8MW WTG as base case;</li> <li>• Monopiles preferred but included jackets with pin piles or suction caissons</li> </ul> <p>SL provided an overview of the 2 cable route options currently being considered; the northern route to Pegwell Bay and the southern route into Sandwich Bay. Options were maintained for scoping and a decision is currently being made following feedback from scoping and an ongoing appraisal process.</p>	n/a
3	SL provided an overview of the EP process including the purpose and the aims. It is essentially a collaborative process between	SL to provide ToR document and

	<p>Vattenfall and the stakeholders to establish robust data on which the HRA will be based. JDM highlighted that this EP process is seeking to agree the data and assessments for EIA also as much of the data required for HRA will be relevant to EIA.</p> <p>The consultation undertaken as part of this process will be used to agree SoCG and ultimately this process seeks to streamline the application leaving only those items still to be agreed as a focus for the examination.</p> <p>SL highlighted that it is Vattenfall’s desire to get as many issues ID’d as possible and get to the point of agreement if possible. The EP process should be seen as useful process to follow and a very positive process, that provides all parties with the opportunity to consider the data and evidence underpinning the assessment at an early stage and to ensure as far as is possible that there is early consensus on key issues, and the adequacy of the information being used to address those issues and concerns.</p> <p>SL emphasised that Technical Review Panels are designed to build on data and discussions previously held, they are not intended to start from scratch.</p> <p>SL discussed the project and Evidence Plan programmes and encouraged feedback both from the stakeholders providing comments on the Terms of Reference document but also in discussing the needs and next steps in the particular Review Panels.</p> <p>SL outlined that documentation to be covered within meetings will be circulated in advance of meetings to allow for review (14 days); and that the expectation is that any documentation submitted for agreement that is not to be discussed at a particular meeting should be returned with comments in line with the 21 day review cycle unless otherwise agreed.</p> <p>SL introduced the consultation log concept as provided within the ToR which will be produced for each review panel. The log is designed to track areas of agreement and outstanding queries to be resolved for each topic area that the stakeholder(s) have an interest in.</p> <p>SL finally iterated that the project would welcome confirmation that the ToR document is accurate and appropriate, and welcomed feedback on the ToR. JW@EA highlighted that the ToR did not appear to be included in information provided. SL Agreed to provide alongside the presentation as requested by MA.</p>	<p>presentation with the minutes.</p>
<p>4</p>	<p>SL gave an overview of the Roles and responsibilities as outlined in the ToR document before then describing the proposed Technical Review Panels and associated membership.</p> <p>It was highlighted that the Environment Agency need to be included across multiple topic areas and a coordinated approach would be needed to ensure EA interests across both onshore and offshore are adequately represented.</p> <p>The Membership was then discussed and agreed as highlighted on Slide 27 of 29 in the attached pdf of the introductory presentation.</p>	

5	<p><b>Onshore Historic Environment sub-group</b></p> <p>It was agreed that the Onshore Historic Environment Review Panel should be led by Amec Foster Wheeler (AFW), the facilitator will be John Mabbitt (JM), Principal Consultant (Historic Environment) AFW. In addition to AFW membership of the review panel will include the following organisations:</p> <ul style="list-style-type: none"> <li>• Historic England</li> <li>• Kent County Council Heritage Conservation</li> <li>• Thanet District Council Conservation Officer</li> <li>• Dover District Council Conservation Officer</li> </ul> <p>Historic England will be represented by Tom Foxall, JM to contact KCC, TDC and DDC for name of representatives to join review panel. Present today where Oliver Gardner (AFW) and Chris Pater (HE).</p> <p>The sub-group breakout discussion focused on/addressed the following issues.</p> <p><b>Effects on onshore historic environment assets from offshore development</b></p> <p>The scope, study area and data sources for the assessment of effects on onshore heritage assets from offshore development need to be agreed, AFW to prepare a methodology.</p> <p>CP stated that assessment should use the SLVIA ZTV as the starting point, it should focus on those assets which have a connection with the sea, include an assessment of impacts of the assets from the sea, and use a narrative approach rather than a matrix.</p> <p><b>Cumulative effects</b></p> <p>It was recognised and agreed that the size, locations and, potentially, form of the new turbine are different from the existing Thanet Offshore Windfarm and therefore that the cumulative effects of the two developments on the views/setting of heritage assets would need to be properly considered. CP stated this should also include effects at night time from lighting.</p> <p><b>Coordination between Onshore &amp; Offshore Historic Environment</b></p> <p>It was agreed that coordination between the two assessments was important, especially in the intertidal area where there is a potential for overlap of an asset from onshore to offshore. CP provided an example from another project where a coordinated programme of onshore/offshore survey was undertaken in order to produce a single deposit model.</p> <p><b>Engineering Works</b></p> <p>The benefit of coordination with the programme of engineering and geotechnical investigations was discussed. It was agreed that AFW will contact Vattenfall to identify opportunities to</p>	<p>AFW to contact KCC, TDC, DDC to confirm contacts</p> <p>AFW prepare methodology</p> <p>Onshore and Offshore Historic Environment sub-group to establish contacts and agree approach for working together</p> <p>AFW coordinate with Vattenfall</p>
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	<p>collect baseline data from engineering and geotechnical investigations.</p> <p><b>Archaeological Field Works</b>  OG stated that, as with the Richborough Connection Project, AFW were proposing to limit the intrusive field work pre-application, but that the DCO and ES would include specific details of what work was to be undertaken by condition. Archaeological Written Schemes of Investigation (WSI) would be produced and agreed with the Onshore Historic Environment Review Panel.</p> <p>CP stated that this approach works provided that the wording of the WSI, including the timing of the investigations in relation to other aspects of the project, are tightly worded and agreed in advance.</p> <p><b>Thanet 1 and NEMO Link</b>  It was agreed that the work undertaken for these two projects would be a key source of information. AFW have requested the Thanet 1 ES and historic environment data from Vattenfall. The NEMO Link ES and data will also be acquired.</p> <p><b>Next steps</b>  AFW to contact sub-group members to agree next meeting.</p>	<p>AFW to acquire Thanet 1 and NEMO link data</p> <p>AFW set up next meeting</p>
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## LVIA/CULTURAL HERITAGE MEETING MINUTES

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**MEETING ORGANISER:** VATTENFALL WIND POWER LTD

**ATTENDEES:** HELEN JOHNSON, THANET DISTRICT COUNCIL  
 FIONA RUNACRE, DOVER DISTRICT COUNCIL  
 NICK DELANEY, DOVER DISTRICT COUNCIL  
 ALISON CUMMINGS, DOVER DISTRICT COUNCIL  
 SIMON MASON, KENT COUNTY COUNCIL,  
 CHRIS DRAKE, KENT COUNTY COUNCIL  
 SIMON MARTIN, OPEN  
 STUART CARGILL, OPEN  
 AMY ROBERTS, AMEC FOSTER WHEELER  
 JOHN MABBITT, AMEC FOSTER WHEELER  
 SEAN LEAKE, GOBE

**APOLOGIES:** IAIN LIVINGSTONE, THANET DISTRICT COUNCIL

**PURPOSE OF MEETING:** EVIDENCE PLAN LVIA/HERITAGE REVIEW PANEL KICK OFF MEETING TO DISCUSS THE TERMS OF REFERENCE, EVIDENCE PLAN PROCESS, AND INITIAL TECHNICAL DISCUSSIONS ON SCOPE AND NEXT STEPS

**DATE & TIME & LOCATION:** TUESDAY 28<sup>TH</sup> MARCH 2017 1030-1430.  
 VATTENALL OFFICES, MILITARY ROAD, RAMSGATE.

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Agenda item	Topic for discussion	
1	Welcome and Introduction	
2	Overview of the project	
3	Overview of the EP process – purpose and aims, the process going forward	
4	LVIA/cultural heritage technical discussion	
6	AOB	
Notes & Actions	Notes	Action
1	SL provided chair role for the meeting. Round table introductions were made	n/a
2	SL provided an update on the project including an update on the following key points <ul style="list-style-type: none"> <li>• High level programme dates</li> <li>• PEI July 2017</li> <li>• Submission Jan 2018</li> <li>• Extension encompasses original site;</li> </ul>	n/a

	<ul style="list-style-type: none"> <li>• 34 x 8MW WTG as base case;</li> <li>• Monopiles preferred but included jackets with pin piles or suction caissons</li> </ul> <p>SL provided an overview of the 2 cable route options currently being considered; the northern route to Pegwell Bay and the southern route into Sandwich Bay. Options were maintained for scoping and a decision is currently being made following feedback from scoping and an ongoing appraisal process.</p>	
3	<p>SL provided an overview of the EP process including the purpose and the aims. It is essentially a collaborative process between Vattenfall and the stakeholders to establish robust data on which the HRA will be based.</p> <p>The consultation undertaken as part of this process will be used to agree SoCG and ultimately this process seeks to streamline the application leaving only those items still to be agreed as a focus for the examination.</p> <p>SL highlighted that it is Vattenfall's desire to get as many issues ID'd as possible and get to the point of agreement if possible.</p> <p>The EP process should be seen as useful process to follow and a very positive process, that provides all parties with the opportunity to consider the data and evidence underpinning the assessment at an early stage and to ensure as far as is possible that there is early consensus on key issues, and the adequacy of the information being used to address those issues and concerns.</p> <p>SL emphasised that Technical Review Panels are designed to build on data and discussions previously held, they are not intended to start from scratch.</p> <p>SL discussed the project and Evidence Plan programmes and encouraged feedback both from the stakeholders providing comments on the Terms of Reference document but also in discussing the needs and next steps in the particular Review Panels.</p> <p>SL outlined that documentation to be covered within meetings will be circulated in advance of meetings to allow for review (14 days); and that the expectation is that any documentation submitted for agreement that is not to be discussed at a particular meeting should be returned with comments in line with the 21 day review cycle unless otherwise agreed.</p> <p>SL introduced the consultation log concept as provided within the ToR which will be produced for each review panel. The log is designed to track areas of agreement and outstanding queries to be resolved for each topic area that the stakeholder(s) have an interest in.</p> <p>SL finally iterated that the project would welcome confirmation that the ToR document is accurate and appropriate, and welcomed feedback on the ToR. SL Agreed to provide alongside the presentation as requested by MA.</p>	
4	<p><b>LVIA/cultural heritage technical discussion</b></p> <p>Initial discussion held as to who would be the lead on the TRP for the organisations.</p> <p>Fiona Runacre (FR) leading for DDC</p>	<p><b>CD</b> to provide contact details for Kent Downs AONB</p>



	<p>Iain Livingstone TDC,          Primary lead for KCC April Newing, with Chris Drake in attendance today, but LVIA discussions may be held through April or Tom Marchant.          Chris Drake (CD) enquired if the Kent Downs AONB would also be invited to join.          Simon Martin (SMar) highlighted that Natural England have declined thus far but could contact them to confirm.          CD took an action to provide contact details.</p> <p><b>Offshore SLVIA</b></p> <p>SMar then lead a discussion on the offshore LVIA considerations. Initially discussing the project envelope and identifying key parameters will be up to 40 WTGS, turbines being higher than existing, distance from shore being only 8km, different foundation types. SMar also highlighted that the export cable was likely to only have temporary construction related effects. SMar highlighted that the design freeze, anticipated to be within the next week or two, would enable a clear description of the maximum effect scenario for the purposes of Preliminary Environmental Information (PEI) and would allow for consideration of orientation and alignment.          Nick Delaney (ND) requested clarification that in identifying the final 34 locations would LVIA be a consideration.          SL confirmed that in principal the flexibility is there to modify according to key issues, of which LVIA may be one.          SMar went on to discuss the study area identifying that the proposal was to use a 45km study area as this is in line with guidance including Scottish Natural Heritage guidance, which is also corroborated by the Zone of Theoretical Visibility (ZTV) and curvature of the earth. Professional judgement, guidance and constraints of the earths curvature suggest that it would be very unlikely that wind turbines beyond 45km would result in significant visual effects.          SMar then highlighted the parameters that are used in defining the visibility of turbines and concluded that viewpoints in Essex may be able to see the upper 126m of WTGs but this would be rare and likely to be masked by any other feature on the sea such as vessels. SMar and Stuart Cargill (SC) also highlighted that the EIA Regulations require that consideration should be given to potentially significant effects, which is unlikely at distances &gt;45km.          A discussion was held regarding the need to liaise with the relevant local authorities in order to confirm this.          SMar took an action to contact Essex County Council, and Canterbury, Swale and Shepway District Councils in order to follow this up.          John Mabbitt (JM) then discussed that when considering effects on cultural heritage receptors a criteria lead approach would be employed in order to reduce the study area and focus on meaningful receptors. The criteria would include distance but also relationship and nature of the setting.</p>	<p><b>SMar</b> to contact Essex CC and additional district councils  <b>JM</b> to provide study area definition criteria for consideration.  <b>HJ</b> to provide update on Thanet landscape character assessment.  <b>SMar and SC</b> to consider S19 and S20 alongside Foulmeer viewpoints and get back to the review panel group with further information.  <b>SMar</b> to consider Dover Castle, South Foreland lighthouse and the disable access to the lighthouse and to feedback to the group.          SL to consider approach to considering decommissioning and repowering of Thanet.          SMar to include Goodwin Sands wireline image within assessment</p>
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	<p>Simon Mason (SMAs) highlighted that there was a need to consider the potential for a significant effect (in terms of the definition in NPS EN-1) and use this as a basis for filtering and defining the study area.</p> <p>JM took an action to provide the criteria to SMAs for consideration.</p> <p>SMar then went on to discuss viewpoints for the LVIA of the offshore wind farm.</p> <p>Helen Johnson (HJ) identified that a viewpoint near Manston Airport at a high point the Manston Road would be preferred by TDC, with SC confirming that a viewpoint location at this high point had been identified during site survey.</p> <p>HJ also identified that the viewpoint at Birchington, Greenham Bay (viewpoint location 15) was ok as long as it was on the headland, and that the viewpoint suggested in the scoping opinion at Minnis Bay was therefore not required if VP15 is included. A viewpoint at Western Esplanade in Broadstairs (Dumpton Gap) was also suggested by HJ.</p> <p>HJ requested confirmation that the project would be employing visualisations/CGI.</p> <p>SMar confirmed that the project will provide 3 formats of image based on SNH visualisation guidance, a baseline view (90°), a wireline view with the turbines in situ, plus a 53° photomontage which would be presented on a 'slim' A1 sheet. Example outputs were circulated around the table to view.</p> <p>FR requested confirmation that hard copies would be sent of the outputs as they were much clearer than having to review on pdf/screen.</p> <p>SMar confirmed that this would be possible.</p> <p>SC asked if there were any further onshore comments.</p> <p>HJ confirmed that the main point was with regards to the airport due to its openness and height.</p> <p>SC confirmed that this would be considered alongside the design freeze for the onshore components of the project, and that it was important to ensure ongoing communication in defining the viewpoints.</p> <p>JM – confirmed that the conservation area viewpoints would be the same in Thanet but may differ from the LVIA viewpoints further a field.</p> <p>SC also identified that the projects to be considered for onshore cumulative impact assessment would be ongoing and put forward at a project level.</p> <p>SL confirmed this and requested that any further projects that the stakeholders felt should be considered would be welcome.</p> <p>HJ confirmed that the projects that TDC felt were relevant had been included in the scoping opinion.</p> <p>SMar also highlighted that the approach would be to seek to include only projects that were similar in nature such as energy related projects.</p> <p>ND confirmed that the projects and approach sounded reasonable.</p> <p>SMar requested an update on the Thanet Landscape Character Assessment.</p>	
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	<p>HJ confirmed that it was going to members at the moment and is expected to be published within the next few weeks. HJ took an action to provide the assessment and updates when available.</p> <p>CD highlighted that the MMO have also undertaken a regional character assessment as part of the Marine Plans process which should be requested from the MMO local officer. CD also highlighted that this should fill any 'gaps in the KCC plan study area.</p> <p>SMar went on to discuss viewpoints in relation to the Dover area for offshore LVIA.</p> <p>SMar highlighted that the scoping opinion requested further viewpoints be considered, particularly viewpoints/areas located further inland.</p> <p>ND identified that Dover as an area has the North Downs dropping down into Sandwich Bay, and locations just above the coastal plain; and areas further inland where the Downs rise up would be suitable locations.</p> <p>ND went on to describe preferred viewpoints in relation to 'dry valleys' that have 'framed views' aligned to the north-east towards the sea, potentially in proximity to the AONB.</p> <p>ND also identified a location at Betteshanger Country Park, near Deal, which was a former colliery pit spoil mound and has a viewpoint platform with potentially good elevation representing a view over the coastal plain.</p> <p>There was a further discussion of including a viewpoint on the English Coastal Path north of Sandwich Bay Estate, the location of which was agreed as being appropriate near the golf course club house (OPEN's viewpoint 19).</p> <p>SMar went on to describe a potential location 20 which may be appropriate for a 'framed view' from higher ground, on the North Downs Way between Woolage Village and Shepherdswell.</p> <p>SMar and SC took an action to consider these viewpoints and get back to the review panel group with further information.</p> <p>Alison Cummings (AC) and ND also flagged that an appropriate location would be the new viewing platform at St Peters Church in Sandwich due to large numbers of visitors; Dover Castle Keep, and the approach to South Foreland Lighthouse (specifically the disable access visitor centre), and South Foreland lighthouse itself.</p> <p>SMas also suggested that there was a clear link with the lighthouse and sea that could be an appropriate consideration, in particular given it is a busy National Trust site.</p> <p>SMar suggested that these could be looked at and questioned whether the current viewpoint at the St Margarets war memorial would be an appropriate proxy. SMar took an action to consider each of the suggested locations and feedback.</p> <p>FR raised the question of repowering and how this could be considered in the assessment, noting that the SoS had also made reference to this. JM noted a preference to use a 'worst case VP and that change to this visibility as the viewer moved around could be discussed in the narrative assessment.</p>	
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	<p>A discussion was held wherein it was considered that a ‘post decommissioning of Thanet OWF’ scenario could be considered, but any ‘repowering’ scenario of either Thanet or the Extension OWF may not be appropriate due to the number of uncertainties and the risk of pre-judging an application which would be required in order to repower.</p> <p>SL took an action to discuss the approach to assessing Thanet in relation to repowering and decommissioning with SMar and Vattenfall.</p> <p>ND and CD suggested it may be appropriate to consider Goodwin Sands as a viewpoint due to it being a visited location. SMar suggested this could be addressed with a wireline visualisation rather than photomontage. This approach was agreed.</p> <p><b>Onshore LVIA</b></p> <p>SC discussed the onshore LVIA scope, including study area, viewpoints and cumulative development context.</p> <p>A 5km study area is proposed for the onshore substation, based on the visibility shown in the ZTV (generated using a model of the onshore substation area of interest at the 16m maximum height) and also based on site survey work which has confirmed that vegetation and other built environment features limit views to relatively close locations.</p> <p>A LVIA study area with a 1km buffer from the final cable trench route was proposed, but it was agreed that this would need to remain flexible to allow for the micrositing of the cable trench as appropriate.</p> <p>SC confirmed that the following viewpoints are proposed for the onshore substation LVIA:</p> <p>Richborough castle (on footpath just to west of Castle) – this was agreed</p> <p>Thornehill – this was agreed</p> <p>Saxon Shore Way (south of bridge) – this was agreed, with ND also requesting a more northerly VP on the path, in proximity to the railway bridge.</p> <p>A256, Richborough Way – agreed as appropriate</p> <p>A257 near Ash – requested by ND to represent views from the south that was also used in assessments of Richborough Connection.</p> <p>Sevenscore crossing – considered more appropriate than country park viewpoints but may require micrositing as the project design process develops.</p> <p>SMas confirmed that there is also a heritage site at Ebbsfleet Hill that should also be considered when refining the viewpoint but Sevenscore looked appropriate.</p> <p>SC described the viewpoints for the onshore cables as being based on the principles of two viewpoints per cable, one at the landfall and one on the eventual route. This was agreed as being appropriate.</p>	
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# Meeting minutes



**Date:** 16 November 2016, 9.30am

**Meeting at:** Meeting room, Vattenfall  
Offices, Ramsgate

**Subject / purpose:**

Thanet Extension offshore wind farm, historic environment assessment

**Attendees:**

Jacob Amuli (Thanet District Council)  
Alice Brockway (Historic England)  
Alison Cummings (Dover District Council)  
John Mabbitt (Wood)  
Sean Leake (GoBe)  
Goran Loman (Vattenfall)  
Cc Simon Mason (KCC)

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**To be presented / discussed:**

- |   |   |        |
|---|---|--------|
| 1 | Introductions   | Action |
|   | <p>JM set out purpose of meeting, to update consultees on project progress leading up to PEI submission, describe scope of PEI and process by which scope had been agreed, discuss methodology of assessment and discuss preliminary findings.</p> <p>JM noted that he was due to catch up separately with Simon Mason (KCC) w/c 20/11</p>  |        |
| 2 | Project Update  |        |
|   | <p>JM set out onshore design evolution since scoping. The Pegwell Bay landfall has gone forward and that the substation location has been moved to Richborough Port. Detail design of the landfall is progressing, but would be at Pegwell Bay Country Park, with surface-laid cabling through the former landfill and direct burial of cable either through Stonelees or along Sandwich Road. Cabling would pass through the Baypoint Sports Club, and then to the substation. Cabling from Richborough Port to REP would be inserted below the A256 by HDD.</p> <p>JM set out that offshore design remained relatively fixed in terms of development area, but that there is an aspiration to use fewer, larger turbines to maximise efficiency and perform better in the offshore environment. The visualisations present the tallest possible turbines (250m to blade tip). It is possible that a greater number of smaller turbines may be used.</p> |        |
| 3 | EIA scope   |        |
|   | <p>Direct effects – scope developed through a desk-based assessment. This has identified three key receptors (WWII defences, Richborough Port and</p>   |        |

Continued...

the Boarded Groin), although other remains may be present.

Indirect effects scoping focused on refining the general HE request to start with the ZTV and had been agreed with the LPA conservation officers, HE and KCC. Assets identified at the initial Evidence Plan meeting (e.g. St Peter's Sandwich, Dover Castle) had been considered.

PEI includes a further stage of refinement, responding to substation design change and identifying which individual listed buildings within the conservation areas would potentially be affected.

JM requested that consultees bore in mind in their s42 responses the potential to further refine the scope where it could be agreed that specific heritage assets would not be affected. All

#### 4 Assessment Methodologies

Direct effects – JM noted that direct effects on individual designated heritage assets and the Boarded Groin had been considered, but that the other heritage assets had been considered as groups – reflecting that the HER is not a complete record and that some features identified by the HER may no longer be present or be indicators of more significant remains.

Indirect Effects – JM noted that the HE 5-step methodology had been used in respect of change arising from the completed array, the construction of the scheme and the permanent onshore infrastructure

General note that the PEI assessment is based on a worst-case approach. Because of the flexibility within the Rochdale Envelope approach, it is possible that some effects may reduce as design evolves through the application process.

#### 5 Direct effects on onshore heritage assets

JM noted that potential significant adverse effects had been identified in respect of the listed WWII defences at Pegwell Bay and the Boarded Groin, but that these could be avoided by specifying exclusion zones – the detail of these would need to be agreed with KCC and HE. There was some uncertainty over the surviving extent of military defences along Sandwich Road, which would need to be discussed with KCC. JM to discuss exclusion zones with KCC

It was anticipated that below ground remains would be of relatively limited value owing to past disturbance or depth of cover of sand and silt reclamation deposits. Loss of evidential value arising from disturbance of non-designated heritage assets would be non-significant and could be mitigated further – detail of proposals to be agreed with KCC. JM to discuss fieldwork with KCC

#### 6 Indirect effects on onshore heritage assets

JM discussed potential change to key receptors, using photomontages supplied:

Reculver – it was generally agreed that change would be very limited. JM to follow up with Rosanne Cummings at Canterbury City Council. AB noted the expectation of seeing shipping movements and other human activity out to sea from these coastal assets. JM noted that this was considered in the PEI, but that there would be a qualitative difference JM to follow up with CCC

Continued...

between shipping movements and turbines.

Westgate on Sea – it was general agreed that effects would be limited. There was brief discussion of the appearance of turbines beyond Margate in views from the west, but JM noted that the character of the Margate CAs did not derive from a distinctive skyline, and that the contribution of these views to character and significance was limited.

Margate Seafront and Margate CAs – noted generally limited visibility of Thanet Extension. JA noted visibility from harbour wall as shown in photomontage.

Margate Clifftop CA – JM noted this as one of the areas where assessment had raised concerns regarding visibility from the open area along the clifftop, but noted the presence of existing detracting elements in some of these views. JA noted potential visibility from the former Lido and the Walpole Bay pool.

Kingsgate CA – JM noted the sensitivity of the views across and out from Kingsgate Bay, with reciprocal views from Kingsgate Castle, the temple of Poseidon and the Captain Digby. Advised that assessment had raised more serious concerns for the settings of Holland End, Holland House and Kingsgate Castle given the way that the bay framed views. JA also noted that there were views to sea from the front of Port Regis School – this is not public access land, but JA will provide contact details for access. JM agreed to follow this up and to include additional assessment in the ES if required.

JA to provide contact details for access to Port Regis School

North Foreland – JM noted views from the lighthouse. AB observed that key significance is visibility of the light in views from the sea. JM agreed and noted that the issue of views from the sea, which had been raised by HE at scoping, had been considered in the assessments. There was some discussion of navigation and aviation lighting. JM observed that this would be more consistent with visibility of shipping movements and would be of limited concern.

Broadstairs – JM noted concerns regarding Bleak House and the Broadstairs CA arising from the visibility of Thanet Extension in views north-east along Viking Bay. Noted that effects on buildings looking out to the E and SE would be less.

Seven Stones House – JM noted that views would be oblique and distant.

Ramsgate CA – JM noted very limited visibility from within the CA resulting from the form of the coastline and the number of buildings. Visibility would primarily be from the seafront N of the marina. JA and AB discussed the significance of the listed buildings at the north of the CA, particularly to the W of Winterstoke Gardens. JA queried whether there would be visibility of Thanet Extension from Nelson Crescent and the Clock House on the marina. JM advised that his feeling was that there would not be visibility, but that he would confirm.

JM to consider visibility from Nelson Crescent and the Clock House

St Peter's Sandwich – JM noted that Thanet extension would be visible, as is the existing TOWF. This visibility would be distant and would not affect the contribution of the church's setting, which primarily derives from the close views of and from the church, particularly at ground level

Continued...

Richborough Castle – JM noted that this term was used in the PEI to describe the whole monument, including the amphitheatre. It was generally felt that the limited visibility shown in the PM would be very distant and incidental, and that where visible, the viewer's attention would be taken primarily by the ruins. AB noted that these sea views were not strongly contributing factors, and JM discussed the significance of landscape change and the ability to understand the changing form of the landscape in the near and middle distance. JM also noted that visibility of the turbines in longer views of the ruins from the amphitheatre or from Castle road would be even more limited.

Sandwich Bay Estate – Visibility would be clear but distant, and it was felt that any change would be limited.

Deal and Walmer CAs– again, visibility would be distant and limited. AC noted that views from Deal were primarily to the east, rather than northwards, and JM noted that the pier was likely to reduce the visibility of turbines in views from Walmer CA. JM noted that all assessments had been made on the basis on maximum visibility, although for assets at 20km or more from Thanet extension, that the number of says where it was sufficiently clear for the proposed development to be seen would fall away quite rapidly. AB noted occasional, but clear visibility of turbines from very distant viewpoints.

Dover Patrol Memorial, South Foreland Lighthouse and Dover Castle – generally agreed that visibility would be very limited and very distant. JM noted that views north from Dover contributed less than those to the town or the sea. AB noted that Dover Castle had been besieged from the north, but that any visibility would relate more to the middle ground.

## 7 Summing up

Direct effects potentially significant, but manageable

Indirect effects generally focused on the seafront conservation areas of Thanet, with principal concern for Margate Clifftop, Kingsgate and Broadstairs.

JM to advise JA, AB, AC and SM of release of PEI

Timetable – PEI release scheduled for Nov 27, deadline for comments in early January. Public information events in early December.

JM suggested meeting in December to discuss issues arising from PEI to assist in compilation of PEI responses

JM to advise of release of PEI release and response schedule

## 8 Site visits (optional)

AB advised that site visits were not required at this stage.



## Mabbitt, John

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**From:** Mabbitt, John  
**Sent:** 20 November 2017 16:27  
**To:** [REDACTED]  
**Cc:** 'Sean Leake'; Wood, Martin  
**Subject:** Thanet extension catch up call

Simon,

thanks very much for your time this afternoon – that was really useful to catch up.

Just to summarise our discussion: Wee discussed design evolution since scoping, specifically the adoption of the northern, Pegwell Bay, landfall, the potential Sandwich Road cable option and the movement of the substation to Richborough Port – most of this had been covered at the most recent evidence plan meeting.

In terms of scope, we discussed the DBA and its key findings – namely that there are three key receptors: WWII defences at Pegwell Bay, remains of Richborough Port and the Boarded Groin (and other floodbanks). For the indirect effects scope, we discussed the criteria-based approach taken to date and the process of refining this scope to reflect design change and field observations.

We discussed the general conclusions of the assessment of direct effects – key issues here comprise:

- establishing appropriate exclusion zones to ensure that the designated WWII defences could be preserved – you raised the point that any exclusion/buffer zones would need to consider indirect effects as well. This is under consideration, but will need refinement through the s42 process.
- ascertaining the survival of elements of the WWII defences along Sandwich Road – if surviving, these are likely to be of equivalent significance to the listed remains;
- understanding the location of the Boarded Groin
- Understanding the location of the elements of Richborough port that may be affected, and the extent of modern disturbance.

Key issues of the assessment of indirect effects include:

- all heritage assets discussed at the initial EP meeting have been considered at some level (some, like the Abbot's Wall have been dealt with fairly quickly as a result of design change)
- effects on heritage assets at Margate Clifftop, Kingsgate and Broadstairs Conservation Areas
- other effects are likely to be very limited.
- we discussed effects on the scheduled monument at Richborough castle – you noted the contribution of views from scheduled areas around the visible ruins and we discussed potential visibility of turbines in views of the ruins from the amphitheatre site and from Castle Road;
- photomontage and wireframe visualisation will be included with the SLVIA

We will try to arrange a meeting in December to assist with the preparation of the s42 response, and I will advise of the release of the PEI.

Please let me know if I've missed anything – I've tried to condense the discussion a bit so may have dropped something in translation...

Thanks again – that was really helpful,

John

**John Mabbitt**

Principal Consultant, Environment & Infrastructure  
Solutions UK



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## GROUND CONDITIONS, CONTAMINATION, LAND USE, WATER & FRA MEETING AGENDA

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**MEETING ORGANISER:** VATTENFALL WIND POWER LTD

**ATTENDEES:** CAROLINE GETTINBY, AMEC FOSTER WHEELER  
JENNIFER WILSON, ENVIRONMENT AGENCY

**APPOLOGIES:** PETER DOWLING, RIVER STOUR INTERNAL DRAINAGE BOARD

**PURPOSE OF MEETING:** EVIDENCE PLAN REVIEW PANEL KICK OFF MEETING TO DISCUSS THE TERMS OF REFERENCE, EVIDENCE PLAN PROCESS, AND INITIAL TECHNICAL DISCUSSIONS ON SCOPE AND NEXT STEP

**DATE & TIME & LOCATION:** MONDAY 27<sup>TH</sup> FEBRUARY 2017 1300-1630.  
DISCOVERY PARK

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Agenda item	Topic for discussion	
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2	Overview of the project	
3	Overview of the EP process – purpose and aims, the process going forward	
4	Review Panel membership	
5	Review Panel breakout sessions	
6	AOB	
Notes & Actions	Notes	Action
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2	<p>SL provided an update on the project including an update on the following key points</p> <ul style="list-style-type: none"> <li>• High level programme dates</li> <li>• PEI July 2017</li> <li>• Submission Jan 2018</li> <li>• Extension encompasses original site;</li> <li>• 34 x 8MW WTG as base case;</li> <li>• Monopiles preferred but included jackets with pin piles or suction caissons</li> </ul> <p>SL provided an overview of the 2 cable route options currently being considered; the northern route to Pegwell Bay and the southern route into Sandwich Bay. Options were maintained for scoping and a decision is currently being made following feedback from scoping and an ongoing appraisal process.</p>	n/a
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	<p>process is seeking to agree the data and assessments for EIA also as much of the data required for HRA will be relevant to EIA.</p> <p>The consultation undertaken as part of this process will be used to agree SoCG and ultimately this process seeks to streamline the application leaving only those items still to be agreed as a focus for the examination.</p> <p>SL highlighted that it is Vattenfall’s desire to get as many issues ID’d as possible and get to the point of agreement if possible. The EP process should be seen as useful process to follow and a very positive process, that provides all parties with the opportunity to consider the data and evidence underpinning the assessment at an early stage and to ensure as far as is possible that there is early consensus on key issues, and the adequacy of the information being used to address those issues and concerns.</p> <p>SL emphasised that Technical Review Panels are designed to build on data and discussions previously held, they are not intended to start from scratch.</p> <p>SL discussed the project and Evidence Plan programmes and encouraged feedback both from the stakeholders providing comments on the Terms of Reference document but also in discussing the needs and next steps in the particular Review Panels.</p> <p>SL outlined that documentation to be covered within meetings will be circulated in advance of meetings to allow for review (14 days); and that the expectation is that any documentation submitted for agreement that is not to be discussed at a particular meeting should be returned with comments in line with the 21 day review cycle unless otherwise agreed.</p> <p>SL introduced the consultation log concept as provided within the ToR which will be produced for each review panel. The log is designed to track areas of agreement and outstanding queries to be resolved for each topic area that the stakeholder(s) have an interest in.</p> <p>SL finally iterated that the project would welcome confirmation that the ToR document is accurate and appropriate, and welcomed feedback on the ToR. JW@EA highlighted that the ToR did not appear to be included in information provided. SL Agreed to provide alongside the presentation as requested by MA.</p>	
4	<p>SL gave an overview of the Roles and responsibilities as outlined in the ToR document before then describing the proposed Technical Review Panels and associated membership.</p> <p>It was highlighted that the Environment Agency need to be included across multiple topic areas and a coordinated approach would be needed to ensure EA interests across both onshore and offshore are adequately represented.</p> <p>The Membership was then discussed and agreed as highlighted on Slide 27 of 29 in the attached pdf of the introductory presentation.</p>	
5	<p><b>Ground Conditions, Contamination, Land Use, Water and Flood Risk sub-group</b></p>	

	<p>It is Amec Foster Wheeler’s intention to submit a combined ES chapter to cover Ground Conditions, Contamination, Land Use, Water and Flood Risk as there is a lot of overlap between the receptors and potential effects. There was a general agreement on this approach.</p> <p>It was agreed that the Ground Conditions, Contamination, Land Use, Water and Flood Risk Review Panel should be led by Amec Foster Wheeler (AFW), the facilitator to be confirmed by AFW. In addition to AFW membership of the review panel will include the following organisations:</p> <ul style="list-style-type: none"> <li>• Environment Agency</li> <li>• Natural England</li> <li>• River Stour Internal Drainage Board</li> <li>• Kent County Council as Lead Local Flood Authority</li> <li>• Thanet District Council Environmental Health Officer</li> <li>• Dover District Council Environmental Health Officer</li> </ul> <p><b>Data and information sources</b> EA were requested if there was a coastal GIS model available for this area, EA to confirm.</p> <p>A request has also been made outside of the meeting to the River Stour Internal Drainage Board for GIS data of the drainage board’s area of responsibility.</p> <p><b>Next steps</b> AFW to contact sub-group members to agree next meeting. <b>20/3 EA correspondence from Jen Wilson</b> <b>EA request that the Project note that any works within 16m of a tidal main river will require authorisation from EA – Flood Risk Activity Permit.</b> <b>EA observe that the minutes from the meeting state that a Ground Conditions chapter will be included in the Environmental Statement. Whilst EA welcome this inclusion, any formal planning application should be accompanied by a preliminary risk assessment in line with relevant guidance.</b></p> <p><b>EA recommend that developers should:</b></p> <ol style="list-style-type: none"> <li>1. Follow the risk management framework provided in CLR11, Model Procedures for the Management of Land Contamination, when dealing with land affected by contamination.</li> <li>2. Refer to the <a href="#">Environment Agency Guiding principles for land contamination</a> for the type of information that we required in order to assess risks to controlled waters from the site. The Local Authority can advise on risk to other receptors, such as human health.</li> <li>3. Consider using the <a href="#">National Quality Mark Scheme for Land Contamination Management</a> which involves the</li> </ol>	<p>AFW to identify facilitator</p> <p>EA to confirm is coastal GIS model available - <b>20/3 EA confirm The East Kent Model should be ready for sign off early Summer.</b></p> <p>RSIDB to provide GIS data</p> <p>AFW set up next meeting</p>
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	<p>use of competent persons to ensure that land contamination risks are appropriately managed.</p> <p>4. Refer to the <a href="#">contaminated land</a> pages on GOV.UK for more information.</p> <p>EA observe that the onshore route of the cable and associated infrastructure should be included in any site investigations.</p> <p>EA observe that the site overlies a chalk aquifer, any pathways for contamination must be strictly controlled to avoid pollution of the principal and secondary aquifers from any historic contamination identified on the site from previous uses.</p>	
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# Minutes

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**Date:** 23 August 2017 10.30 to 12.30

**Meeting at:** Vattenfall Wind Power Limited,  
Ramsgate, Kent

**Subject / purpose:**

39080 - TEOWF – Pegwell Bay Landfall Options Review

**Attendees:**

Jennifer Wilson (JW) – Environment Agency  
Morgan Sproates (MS) – Thanet District Council (TDC)  
Luke Glover (LG) – TDC  
Nick Gill (NG) – Kent County Council (KCC)  
Charlotte Beck (CB) – KCC  
Rebecca Frier (RF) – KCC

**Apologies:**

Sean Leake - GoBe Consultants

Damian Martin (DM) – Vattenfall  
Oliver Gardner (OG) – Amec Foster Wheeler (AFW)  
Richard Cartlidge (RC) – AFW  
Vanessa Dahmoun (VD) – AFW  
Matt Logan (ML) – AFW

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**Minutes:**

**Action by:**

- 1 Introductions were made and OG thanked all for attendance. OG explained that the main purpose of the meeting was to review the proposals for the Thanet Extension Offshore Windfarm (Thanet Extension) export cables making landfall at the Pegwell Bay Country Park. AFW would also provide a brief summary of the results from the Phase 1 Geo-environmental Desk Study.
- 2 OG and DM gave an overview of the Thanet Extension project and of the programme.  
  
DM confirmed that current programme is for Section 42/47 consultations to take place during October 2017, submission of DCO application in March 2018, and DCO examination from July to December 2018.
- 3 VD shared draft copies of the Phase 1 Geo-environmental Desk Study and gave a summary of the methodology and key findings.

Continued...

There was a discussion on the identified sources of contamination across the study area.

VD led a discussion on the Pegwell Bay Landfill (previously named Cliffsend Landfall), which is now the Pegwell Bay Country Park. Information on the history of the landfill had been obtained from an Envirocheck data search, with additional information provided by KCC and TDC. It was acknowledged that there was not much information available about the construction methodology for the landfill, NG stated that KCC have reviewed the old micro-fiche records but there was little historic information on the construction of the landfill available.

CB stated that the main concern for KCC is the lack of detailed knowledge of the landfill construction techniques, for example whether or not the landfill was lined, whether or not there is any shuttering along the edge of the landfill, the depth of the landfill.

CB also stated that there is a culverted surface watercourse/drain that runs beneath the landfill. The entrance is not known (assumed to be along the western edge of the country park adjacent to the road), but the exit at the eastern edge of the landfill close to the bird hide is marked and sampled by KCC (known as PB-S2). The outfall is beneath the rock armour (marked with yellow paint on the rocks) and has a tidal flap. DM noted that this location is likely to be close to the proposed location of the cable landfall. A 2016 water sampling report, including plans showing the surface water sampling locations and boreholes, has been provided to AFW by KCC. Another surface water drain runs around the southeastern edge of the landfill which is also regularly sampled (known as PB-S1). PB-S1 is collected from a small tributary of the River Stour.

The results from samples suggest that PB-S2 is predominately influence by the landfill and the leachates that it produces. Sample PB-S1 is partly effected by tidal water, a limited influence by the landfill has been recorded at PB-S1.

DM asked if the borehole logs from the 2016 water sampling are available.

AFW will review the report and identify the surface water outfall in relation to the development proposals.

- 4 DM gave an overview of the project and the proposals for the onshore export cable for the Thanet Extension project.

The offshore export cable will follow the route of the existing Thanet Offshore Wind Farm cable to make landfall at a location in the centre of the Pegwell Bay Country Park. There are offshore constraints, e.g. the Nemo Link Cable, the Ramsgate Harbour channel, which need to be avoided. Offshore the worst case will require four offshore export cables, these will need to transition to onshore cables within a transition pit.

From the transition pit the cable will run above ground through the country park using a similar technique to the Nemo Link project, first inland to where the Nemo Link cable runs, then parallel to the Nemo



Continued...

Link to the south. The proposed sub-station is within the former Richborough Port, the connection to the National Grid Electricity Transmission Network is within the Richborough Energy Park.

There is an access to the cable corridor through the country park car park to the north, the existing Nemo Link working compound within the country park will be reused during construction.

CB asked if the project could make landfall adjacent to the Nemo Link project and then follow the same route running alongside the Nemo Link cable.

MS asked if any landfall options that could avoid a landfall within the country park were explored,

DM stated that the options of landfall adjacent to the Nemo Link project and further north were looked at, but there is not enough space due to constraints including the existing Thanet Offshore Wind Farm export cable, the Cliffs End petrol station, the former Ramsgate Hoverport and ecological constraints.

There are currently three options for the landfall and location of the transition pit which are being assessed for the Preliminary Environment Information (PEI) report:

1. Transition pit constructed within the intertidal area;
2. Transition pit on the top of the Pegwell Bay Country Park, close to the existing footpath;
3. Transition pit further inland within the Pegwell Bay Country Park.

All three options will require the construction of new rock armour defences to create an area in front of the landfill for the cables to be buried in order to rise onto the top of the country park; this will avoid the need for any excavation within the former landfill. This will require some land take from the salt marsh, which is a SSSI. JW said a concern for the EA would be the loss of the salt marsh habitat, and that the EA would want to see more detailed design in order to determine the potential impact on the saltmarsh. DM stated that engineering solution would look to reduce the land take within the salt marsh as much as possible.

CB asked if the existing rock armour defences will be left in place. DM stated the construction technique has not been set, and could either leave the existing rock armour defences in place, or remove them depending on the status of the sea defences and landfill and any potential effects.

JW stated recommended keeping the existing sea defences in place as this was likely to have the least impact on the historic landfill. MS of TDC agreed to this position.

Option 3 would require the 'off shore' cables to run on-land from the landfall to the transition joint bay. As these are larger the land take

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and above ground construction within the country park would be larger.

RF asked how close to the Nemo Link project the cables will run. DM stated that discussions are taking place to agree the separation distance, however there would need to be a gap for thermal protection.

RF stated that KCC would be concerned if any excavation was undertaken within the country park (no holes in the side of the landfill). KCC would also need to have continued access around the country park on the existing footpaths and access tracks.

- 5 There was a discussion on the ownership and construction of the existing sea defences around the Pegwell Bay County Park.

JW stated that these are not Environment Agency sea defences.

LG/NG will determine whether it is TDC or KCC who are responsible for the sea defences.

KCC/TDC are not sure when the sea defences were constructed. LG will look into the TDC records for any information on the age of the sea defences.

NG stated that the landfill was formerly operated by TDC but would have been transferred to KCC following the 1974 Local Government Act. NG has some memory that there was steel shuttering around the edge of the landfill adjacent to the sea defences, but cannot be sure.

CB suggested consultation with the Pegwell Bay Country Park group should be undertaken.

- 6 AOB

MS asked if there was any potential for a build-up of landfill gasses within the cable ducts and inspection pits that cross the landfill. The transition pits in the design, particularly in Option 1, are at a lower point than the cable ducts are they cross the landfill. Therefore, if there were any pathway for the ingress of landfill gasses into the sealed concrete cable ducts (broken seal, etc...) there is the potential for pooling/concentration of denser gasses in the inspection pits (ie. CO<sub>2</sub> – asphyxiant).

DM stated that the ducts would be sealed plastic pipes within a sealed concrete box, therefore it would not be possible for gas to enter the ducts. OG also stated that the construction works and operational procedures for any maintenance works would include standard HSE protocols, such as a Confined Spaces Procedure, to mitigate any risks. MS even with above controls given the very rapid effects of entering a space with high levels of potential asphyxiants, consideration of passive ventilation of the inspection pits (or other mitigation) as part of the design may be desirable.

Currently no GI/SI is planned pre-construction but DM stated that it would be undertaken during the construction phase, but ML asked if any was undertaken in the country park would KCC support. CB

Continued...

stated that KCC would like to see details of any planned works for review and approval. JW confirmed there would be no need for a FRAP for any works adjacent to the country park sea defences as the defences do not belong to the EA, however the EA would like to see any proposals before work commences as there may be an impact on the saltmarsh. LG stated TDC should also be consulted but have no formal consenting/approval process.

CB asked if there will be a preferred option for the landfall when the DCO is submitted. DM confirmed that it was the intention to present one landfall option in the DCO application.

## ENVIRONMENT AGENCY MEETING MINUTES (TELECONFERENCE)

**MEETING ORGANISER:** VATTENFALL WIND POWER LTD

**ATTENDEES:** SEAN LEAKE (GOBE CONSULTANTS) (SL)  
 SAMMY MULLAN (GOBE CONSULTANTS) (SM)  
 DALILA BENCHBANE (VATTENFALL) (DB)  
 HELEN JAMESON (VATTENFALL) (HJ)  
 IAN HUMPHEREYES (ENVIRONMENT AGENCY) (IH)  
 JENNIFER WILSON (ENVIRONMENT AGENCY) (JeW)  
 TOM REID (ENVIRONMENT AGENCY) (TR)  
 JONATHON ATKINSON (ENVIRONMENT AGENCY) (JA)  
 JOE WILLIAMSON (ENVIRONMENT AGENCY) (JoW)

**APOLOGIES/MEMBER NOT REQUIRED FOR PARTICULAR MEETING:** N/A

Agenda item	Topic for discussion	
1	Welcome and Introduction	
2	Richborough Connection	
3	Minister Stream	
4	Pegwell Bay Country Park	
5	Sea/Flood defence and Landfall	
6	AOB	
Notes & Actions	Notes	Action
1	<p><b>Welcome and Introduction</b>            SL thanked everyone for their time and outlined the proposed agenda for the call including a specific particular focus on the Pegwell Bay Country Park (PBCP).</p> <p>Figures from the PEIR onshore PD chapter (Volume 3, Chapter 1) were circulated prior to the call via email. These were referred to throughout the teleconference.</p>	
2	<p><b>Richborough Connection</b> (Figure 1.5 for reference)            The current design proposal would be to run the cable as close as possible to the flood defence in the Richborough Energy Park (REP) due to limited space on the site.</p>	

	<p>JoW confirmed that if the cable were within 16 m of the flood defence then a Flood Risk Activity Permit (FRAP) would be required.</p> <p>The EA highlighted that there are potential contamination issues on the REP site and the road due to former land use. A FRAP may also be required for these works. It was suggested to request the decommissioning reports and the information for the REP project. These reports are not held by the EA.</p> <p>SL acknowledged this and asked if there were any other concerns of note with regards running the cables along the existing road adjacent to the flood defence. EA confirmed that the FRAP, and consideration of ground contamination were the only concerns or advice of note.</p>	
<p>3</p>	<p><b>Minister Stream Culvert</b> (Figure 1.4)</p> <p>SL provided overview of figure and proposed works.</p> <p>JeW stated that they had received a letter from VWPL which suggested that EA own the land and/ or the culvert. She confirmed that the EA manage culverts on main rivers, including the Minster Stream, but do not own the asset/ land at the Minster Stream culvert. TR confirmed that they hold an oversight role. HJ clarified that any parties with interest have been contacted which is why the letter had been sent and apologised for any confusion caused.</p> <p>JoW requested clarification on the proposed design to cross the culvert. HJ confirmed that both trenching over the top of the existing culvert, avoiding damage to it, and other suitable alternatives are being considered at present. However, trenching in the ground above the existing culvert and avoiding significant engineering/ culverting of the stream is Vattenfall's preference.</p> <p>SL highlighted that upstream water vole potential has been identified in the EPS surveys undertaken for the project.</p> <p>The EA stated their preference would be to retain the existing culvert and not to build new structures or stem the flow of the watercourse. DB confirmed that this is also Vattenfall's preference.</p> <p>It was agreed by all parties that additional site investigation work in the future, prior to construction, would likely be required and that any available design or inspection information would be helpful. JoW confirmed that inspection records may be available and took an action to look into available information.</p>	<p>JoW - To provide any records (designs, inspection notes etc.) of the culvert held and any known conditions.</p>
<p>4</p>	<p><b>Pegwell Bay Country Park</b> (Figure 1.2)</p> <p>SL summarised the outcomes of the previous meetings held with KWT and KCC. He noted the Option 1 onshore cable route had been brought forwards for consultation to avoid the need to trench in Stonelees Nature Reserve. Vattenfall are currently working on the assumption that all cables would need to be surface laid over the historic landfill, similarly</p>	<p>SL to request the country park investigation report from KCC estates team.</p>

	<p>to the Nemo design. KCC have expressed that they are prefer Option 2 (i.e. not the Nemo crossing option) due to the potential berm heights at the onshore cable crossings. KCC have requested that Vattenfall investigate whether trenching through PBCP is possible.</p> <p>Vattenfall propose to undertake site investigation (SI) work for trenching but they would like to understand the EA’s opinion on trenching given that it is a historic landfill prior to commissions an SI campaign.</p> <p>JA confirmed that the landfill was used between the 1950s to 1970s. Scrap vehicles were used on the foreshore to prevent the waste being washed into the sea with subsequent pouring of concrete to stabilise. JA stated that KCC undertook investigations in the early 1990s to understand the status of the PBCP. These investigations resulted in areas being fenced off from the public due to poor capping which was subsequently fixed. The report did not find evidence of PCBs being present, however there is anecdotal evidence that they may be present. SL mentioned that members of the public suggested that PCBs might be present due to a local business which used the site and had to undertake PCB remediation works. JA confirmed that there are known contaminants and are route dependent.</p> <p>The EA confirmed that any site investigation works would require the correct permits and that any material removed would be classed as waste.</p> <p>Trenching would need to take into account for the disturbance of the materials present and management of water. Vattenfall would need to ensure that the trench did not create pathways for gases or leachates.</p> <p>HJ enquired whether the Nemo project undertook any SI works or assessment of the PBCP. The EA confirmed that the Nemo project did not undertake the site investigations and made a project description to surface lay due to disposal and logistical costs.</p> <p>DB confirmed that she would like to provide a high level methodology for the site investigation programme, including a list of the proposed contaminants, for the EA’s review ahead of the work being undertaken.</p>	
5	<p><b>Sea/ flood defence and landfall</b></p> <p>SL acknowledged previous concerns raised by the ES with regards to permanent loss of saltmarsh habitat and the potential of splitting this habitat through the introduction of a structure on the intertidal and the potential effects associated with a separation.</p> <p>SL confirmed that a cofferdam is proposed to control leachate at the landfall. He queried whether there would be any constraints for using cofferdams. The EA confirmed that site investigations should also be undertaken for the area of the proposed landfall.</p> <p>IH relayed that in the late 1990s there had been orange discharge/leachate from the sea wall and there were high ammonia</p>	

	<p>concentrations. The sea wall had not been built to prevent leachate but to prevent the landfill materials being washed away into the sea. The leachate was found near a brackish ditch between the nature reserve and the saltmarsh. The area has dense vegetation but isn't known to have leachate currently present.</p> <p>The EA iterated that the project will need to ensure that there is no worsening of the situation and that no new pathways are created. This may include leaving barriers (such as a cofferdam) permanently in place at the landfall.</p> <p>Vattenfall confirmed that they would seek to agree the works with everyone with an interest in the sea defence, such as KCC, EA and TDC. HJ confirmed the project's understanding is that KCC manage the sea defence but TDC own the defence.</p> <p>The EA stated that it was their understanding it is not a true sea/ flood defence. It was not an EA asset. Site investigation work would be required both at the proposed landfall and also in the saltmarsh.</p>	
<p>6</p>	<p><b>Site Investigation works</b></p> <p>DB confirmed that the project's intention would be to undertake a site investigation (SI) campaign in 2018 to inform the DCO application. The SI data would not be available to inform the ES but would inform final design.</p> <p>Vattenfall would like to agree a list of contaminants and the survey scope with the EA ahead of the SI campaign. <i>Post-meeting note: a call has been proposed for 18<sup>th</sup> December with the Vattenfall, GoBe, EA, KCC and NE to discuss the proposed survey scope and an initial SI layout figure is to be issued in advance.</i></p> <p>DB outlined that the proposed methodology would include trail pits, boreholes, monitoring wells and contaminants analysis in order to inform the risk assessment of trenching the historic landfill.</p> <p>JA highlighted that he thought the Nemo project might have done some high-level SI work, possible a desk-based assessment. HJ sought clarification who might hold that report as it had not been provided to Vattenfall by Nemo. JA confirmed that a report had been submitted via the planning application and should be available through non-FIO procedures.</p> <p>DB confirmed that the intention would also be to undertake SI at the proposed substation location. SL also confirmed that SI works would be undertaken in the saltmarsh to understand if there has been historical contamination by leachate. The EA highlighted that if there is a disturbance or a release of leachate Vattenfall would be responsible.</p>	

	<p>IH requested that trenching as associated potential impacts should be considered in the EIA. He also stated that to ensure mitigation would be effective then the contaminants would need to be known and identified.</p> <p>JeW/ IH requested confirmation of which landfall options were assessed in the PEIR. SL confirmed that both options (the larger (Option 1 - TJB in the saltmarsh) and smaller (Option 2 - TJB in PBCP) have currently been assessed however a decision would be made prior to application. The decision will be informed by S42 responses.</p> <p>TR highlighted the need for saltmarsh to be assessed as a priority habitat in its own right. SL and SM confirmed that it had been assessed as such in the PEIR in several places including WFD assessment.</p> <p>The EA queried whether adequate mitigation could be considered prior to full site investigation works.</p> <p>SL clarified that the project has sufficient information to characterise for the purposes of undertaking an EIA. Each of the topic assessments has applied a Rochdale envelope/ 'realistic worst-case' approach by identifying the worst-case for each assessed impact and applied mitigation accordingly.</p>	
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## MEETING MINUTES (TELECONFERENCE) – 18/12/17

<b>MEETING ORGANISER:</b>	VATTENFALL WIND POWER LTD
<b>ATTENDEES:</b>	SEAN LEAKE (GOBE) (SL) SAMMY MULLAN (GOBE) (SM) DALILA BENCHBANE (VWPL) (DB) KATE PHILLIPS (KCC) (KP) CHARLOTTE BECK (KCC) (CB) WILL HUTCHINSON (NATURAL ENGLAND) (WH) INGRID CHUDLEIGH (NATURAL ENGLAND) (IC) JENNIFER WILSON (EA) (JW) IAN HUMPHREYES (EA) (IH)
<b>APOLOGIES/MEMBER NOT REQUIRED FOR PARTICULAR MEETING:</b>	HANNAH CLEMENTS (KCC) JONATHON ATKINSON (EA) ALEX FAWCETT (NATURAL ENGLAND) CHRISTINA RELF (NATURAL ENGLAND)

Agenda item	Topic for discussion	
1	Welcome and Introductions	
2	Requirement for the SI campaign	
3	SI methodology	
4	Consents and permits	
5	AOB	
Notes & Actions	Notes	Action
1	<p><b>Welcome and Introduction</b> SL thanked everyone for their time and outlined the proposed agenda for the call including a specific particular focus on the proposed site investigation (SI) campaign to determine the feasibility of trenching in the country park.</p> <p>SL circulated a figure presenting indicative locations of boreholes and trial pits/ trenches along both Options 1 and 2.</p>	N/A
2	<p><b>Requirement for the SI campaign</b> SL explained that the project feel that we have enough information to characterise the environment for the purposes of an EIA and that normally SI works would be carried out post-consent. However, given that KCC and other parties have requested that the feasibility of trenching to be undertaken ahead of application. Therefore, VWPL</p>	N/A

	<p>intend to procure a contractor to undertake a SI campaign to inform the feasibility and final design.</p> <p>KP queried whether just trenching or where HDD was being considered. SL confirmed that HDD is not considered to be feasible in the PBCP but the possibility of trenching is being explored.</p> <p>WH highlighted that the loss of saltmarsh habitat is a key issue and whether trenching would reduce the impact. SL confirmed that the SI works would help determine whether the transition joint bays (TJBs) could be buried in the country park which would reduce the footprint on the saltmarsh. SL confirmed that VWPL's preference would typically be to bury assets, such as the TJBs or cables.</p> <p>KP enquired whether, if trenching were feasible, the crossing of Nemo would be under or over ground. SL suggested it would be dependent on ground conditions.</p> <p>Post meeting note: SM clarified via email that the intention is to undertake the SI works to determine if it is technically feasible to trench. These exploratory works will look into the environmental factors (such as ground conditions etc) and being feasible in terms of engineering design. Therefore, until the works have been undertaken and analysed the project will be maintaining an over ground option in our assessments/ Environmental Statement.</p>	
<p><b>3</b></p>	<p><b>SI Methodology</b></p> <p>DB confirmed that the trial pits would typically be 2m x 2m x 2m but could be up to 3.5 m deep in the country park and likely to be shallower in the saltmarsh.</p> <p>JW raised concerns about the depth and interacting with groundwater and so creating pathways for contaminants.</p> <p>CB confirmed that the water level is 1.8 to 3.5 m deep across the PBCP. She confirmed that the historic landfill varies between approximately 3 to 5 m.</p> <p>IH queried how the material would be re-instated in the saltmarsh. DB confirmed that the top layers would be kept separately and the structure would be maintained as far as possible.</p> <p>A conversation was held about the feasibility of getting machinery on to the saltmarsh. Handheld excavations might be a possible solution.</p> <p>WH enquired as to the duration of the SI campaign. DB confirmed it would be approximately 2-3 weeks. KP requested that the works are undertaken outside of the Easter period/ school break. WH also indicated that the intertidal works should be completed outside of the seasonal restriction (Oct-Mar). DB confirmed that the results would be available approximately 2 months after the works are completed.</p>	<p>GoBe to send DB the annexes detailing the KCC borehole data.</p> <p>CB to send relevant reports to SL.</p> <p>DB to provide justification as to why trial pits are required in addition to boreholes. (Volume 5, Annex 6-1 of the PEIR).</p>

	<p>SL confirmed that the worst case for each topic would be considered in the ES, i.e. trenching or a berm. The application will contain one onshore cable route option but both methodologies.</p> <p>WH requested that the postponed mitigation meeting is held post-S42.</p> <p>CB requested clarification on whether highway permits would be sought for works in the highway. SL confirmed they would be.</p> <p>CB requested additional information on the bore holes, such as size and why both methods would be required. DB stated that both methods provide more information but would check with the appointed contractor. She also indicated that boreholes would be preferable due to the potential amount of disturbance that would be caused and the potential for contaminant paths due to a breach of the landfill capping. Therefore, CB requested justification for trial pits.</p> <p>CB also raised concerns about a known culvert which runs through PBCP, but the location is unknown. Additional work may be required to ensure the SI works and all phases of the project (including construction) do not interact with the culvert.</p> <p>JW requested an update on whether the report mentioned in a previous meeting (08/12/17) had been provided to VWPL. CB confirmed that KCC were in the process of locating the reports to be sent. One report contained information about the south-western area of PBCP.</p> <p>KP highlighted that animals would need to be moved in the PBCP before the works.</p>	
4	<p><b>Consents and permits</b></p> <p>SL requested information on the required consents as this is being applied for ahead of consent.</p> <p>JW confirmed that a flood risk assessment plan (FRAP) would be required.</p> <p>CB confirmed that highway access consents would be required and land access would need to be arranged with the property department of KCC.</p> <p>WH confirmed a test of no likely significant effect would be required for the SSSI. He highlighted that a marine licence/ exemption may be required below MHWS. SL agreed but stated that an agreed methodology with Natural England would need to be sought ahead of applying for a marine license.</p>	<p>JW to enquire about consents for re-instating any waste materials.</p>
5	<p><b>A.O.B</b></p> <p>JW queried how the possibility of trenching would affect the flood defence and whether how it was constructed could be investigated as part of the SI works. CB highlighted that the current SI proposals do not provide sufficient detail to provide assessment of the potential impact on the sea defence.</p> <p>SL confirmed that the SI works would inform whether the TJB could be buried.</p>	<p>N/A</p>

	<p>Consents will be applied for when more information is available from the contractors.</p> <p>A follow-up meeting, potentially coinciding with the next round of Evidence Plan meetings, will be held when more information is available.</p>	
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## POPULATION & HUMAN ENVIRONMENT MEETING AGENDA

**MEETING ORGANISER:** VATTENFALL WIND POWER LTD

**ATTENDEES:** KAREN WILSON, AMEC FOSTER WHEELER  
HELEN JOHNSON, THANET DISTRICT COUNCIL  
APRIL NEWING, KENT COUNTY COUNCIL  
FIONA RUNACRE, DOVER DISTRICT COUNCIL

**APPOLOGIES:** IAN LIVINGSTONE, THANET DISTRICT COUNCIL

**PURPOSE OF MEETING:** EVIDENCE PLAN REVIEW PANEL KICK OFF MEETING TO DISCUSS THE TERMS OF REFERENCE, EVIDENCE PLAN PROCESS, AND INITIAL TECHNICAL DISCUSSIONS ON SCOPE AND NEXT STEP

**DATE & TIME & LOCATION:** MONDAY 27<sup>TH</sup> FEBRUARY 2017 1300-1630.  
DISCOVERY PARK

Agenda item	Topic for discussion	
1	Welcome and Introduction	
2	Overview of the project	
3	Overview of the EP process – purpose and aims, the process going forward	
4	Review Panel membership	
5	Review Panel breakout sessions	
6	AOB	
Notes & Actions	Notes	Action
1	SL provided chair role for the meeting. Round table introductions were made	n/a
2	<p>SL provided an update on the project including an update on the following key points</p> <ul style="list-style-type: none"> <li>• High level programme dates</li> <li>• PEI July 2017</li> <li>• Submission Jan 2018</li> <li>• Extension encompasses original site;</li> <li>• 34 x 8MW WTG as base case;</li> <li>• Monopiles preferred but included jackets with pin piles or suction caissons</li> </ul> <p>SL provided an overview of the 2 cable route options currently being considered; the northern route to Pegwell Bay and the southern route into Sandwich Bay. Options were maintained for scoping and a decision is currently being made following feedback from scoping and an ongoing appraisal process.</p>	n/a
3	SL provided an overview of the EP process including the purpose	SL to provide ToR

	<p>and the aims. It is essentially a collaborative process between Vattenfall and the stakeholders to establish robust data on which the HRA will be based. JDM highlighted that this EP process is seeking to agree the data and assessments for EIA also as much of the data required for HRA will be relevant to EIA.</p> <p>The consultation undertaken as part of this process will be used to agree SoCG and ultimately this process seeks to streamline the application leaving only those items still to be agreed as a focus for the examination.</p> <p>SL highlighted that it is Vattenfall's desire to get as many issues ID'd as possible and get to the point of agreement if possible. The EP process should be seen as useful process to follow and a very positive process, that provides all parties with the opportunity to consider the data and evidence underpinning the assessment at an early stage and to ensure as far as is possible that there is early consensus on key issues, and the adequacy of the information being used to address those issues and concerns.</p> <p>SL emphasised that Technical Review Panels are designed to build on data and discussions previously held, they are not intended to start from scratch.</p> <p>SL discussed the project and Evidence Plan programmes and encouraged feedback both from the stakeholders providing comments on the Terms of Reference document but also in discussing the needs and next steps in the particular Review Panels.</p> <p>SL outlined that documentation to be covered within meetings will be circulated in advance of meetings to allow for review (14 days); and that the expectation is that any documentation submitted for agreement that is not to be discussed at a particular meeting should be returned with comments in line with the 21 day review cycle unless otherwise agreed.</p> <p>SL introduced the consultation log concept as provided within the ToR which will be produced for each review panel. The log is designed to track areas of agreement and outstanding queries to be resolved for each topic area that the stakeholder(s) have an interest in.</p> <p>SL finally iterated that the project would welcome confirmation that the ToR document is accurate and appropriate, and welcomed feedback on the ToR. JW@EA highlighted that the ToR did not appear to be included in information provided. SL Agreed to provide alongside the presentation as requested by MA.</p>	<p>document and presentation with the minutes.</p>
<p>4</p>	<p>SL gave an overview of the Roles and responsibilities as outlined in the ToR document before then describing the proposed Technical Review Panels and associated membership. It was highlighted that the Environment Agency need to be included across multiple topic areas and a coordinated approach would be needed to ensure EA interests across both onshore and offshore are adequately represented. The Membership was then discussed and agreed as highlighted on Slide 27 of 29 in the attached pdf of the introductory</p>	

	presentation.	
5	<p><b>Population/Human environment sub-group</b>  Sub-group consisted of KCC,TDC and DDC planning reps. Agreed that they would be the first point of contact, however, they would liaise with their technical colleagues – EHOs, highways heritage etc and if necessary separate con-calls/meetings would be arranged with AFW technical leads.</p> <ul style="list-style-type: none"> <li>Scoped in/out issues (from scoping opinion and subsequent discussions through EP process)</li> </ul> <p>The LPAs considered their scoping comments were clear but happy to discuss as we go forward.</p> <ul style="list-style-type: none"> <li>Study area description</li> </ul> <p>DDC reiterated comments in scoping about study areas should the routes move within the area of interest and widen further any buffer zones. GL confirmed that VF is looking at options within the initial 500m buffer and also to decide on N vs S options, and commented that some 50% of the land within the Onshore Area of Search has been excluded as potential for the onshore South route.</p> <ul style="list-style-type: none"> <li>Data and information sources – baseline data analysis to be undertaken. Note any on-going or proposed data collection or other studies.</li> </ul> <p>LPA comments on agreement of surveys (e.g. noise monitoring locations) is noted and will be actioned once a route corridor has been chosen.</p> <p>DDC flagged scoping did not show Pegwell or Sandwich Conservation areas.</p> <ul style="list-style-type: none"> <li>Identification of potential impacts to be assessed</li> </ul> <p>Cumulative projects – the intent is to agree a list of projects that are scoped in for CIA and a cut-off date after which we won't be able to continue to update the assessment.</p> <p>Health – KW flagged that a separate HIA was not flagged by Public Health England as necessary, although the scoping report had alluded to a Health Impact Review (in addition to coverage in the ES chapters). KW hoped to consider this further with the LPAs to avoid repetition. LPAs to discuss internally and feedback comments on approach.</p> <ul style="list-style-type: none"> <li>Key uncertainties</li> </ul> <p>At this point, choice of route option/route.</p> <ul style="list-style-type: none"> <li>Mitigation and monitoring commitments</li> </ul> <p>None at this stage.</p> <p>Other points:  DDC asked VF if they could have a site visit (south option) – Mel to take away.  DDC asked for details of the public events that have taken place, and what future events were planned. Mel explained that public information days had been held, including one at the Guildhall Sandwich. Mel asked DDC if an 'informal chat' with DDC members would be appropriate, as had been had with TDC and KCC, to give an overview of the project.  Question was raised over whether the Golf Open was returning to Sandwich and when.</p>	<p>DDC to advise</p> <p>DDC to check</p>

	Tourism and recreation to be included in a sub-group. DDC suggested a column for 'date agreed' and/or start and end date is added to the consultation log.	
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## Sammy Mullan

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**From:** Powell, John [REDACTED]  
**Sent:** 27 February 2018 14:04  
**To:** 'Ford, Luke'; Abnormal Loads  
**Cc:** Bown, Kevin; Simms, Adrian; Blakeman, Simon  
**Subject:** RE: Thanet Extension Offshore Wind Farm AIL Study  
**Attachments:** AIP 485 THANET EXT OFFSHORE WIND FARM.pdf

Hi Luke

Please find attached AIP for the future movement of 1 Super Grid Transformer (SGT)/ Transformer Tank from the port of Ramsgate to Thanet Extension Offshore Wind Farm.

Full movement and component details to be confirmed by yourselves nearer the planned movement time schedule.

With regards to any associated constraints on the route or structures, this will be assessed when we send out the movement route for consultation with all affected route parties. It would be pointless at this present time as things can change over time regarding the clearance of specific routes.

Hope this helps.

Please feel free to contact me if you require any further information.

Regards

John

### John Powell

Highways England | The Cube | 199 Wharfside Street | Birmingham | B1 1RN

Web: <http://www.highways.gov.uk>

---

**From:** Ford, Luke [REDACTED]  
**Sent:** 26 February 2018 17:27  
**To:** Powell, John; Abnormal Loads  
**Cc:** Bown, Kevin; Simms, Adrian; Blakeman, Simon  
**Subject:** RE: Thanet Extension Offshore Wind Farm AIL Study

Hi John,

Many thanks for your email.

As construction is not proposed to commence until December 2020 (at the earliest) the client is unable to provide further information on the specific details of the transformer, haulier to undertake the transportation, or the location of origin. Therefore we have to assume, at this stage, that either Port option could be utilised.

In response to your questions, I can confirm that a waterway option has not been explored. I can feed this back to the client.

Due to the fact that no haulier has been appointed, no costs for transporting components have been identified. It's a valid question and one I can pass on.

At this stage, I cannot confirm if the components require SGTO.

Ideally at this stage we seek your feedback and approval in principal on the potential proposed routes from Port to site. Are there any vertical, horizontal constraints we need to be aware of on the relevant routes?

If you have any other questions, please do not hesitate to get in touch.

Kind regards,

Luke

**Luke Ford MCIHT**  
Transport Planning Consultant

[www.woodplc.com](http://www.woodplc.com)



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**From:** Powell, John [REDACTED]  
**Sent:** 22 February 2018 09:15  
**To:** 'Ford, Luke' [REDACTED] Abnormal Loads [REDACTED]  
**Cc:** Bown, Kevin [REDACTED] Simms, Adrian [REDACTED] Blakeman, Simon [REDACTED]  
**Subject:** RE: Thanet Extension Offshore Wind Farm AIL Study

Good Morning Luke

Many thanks for your enquiry.

Highways England will always prefer any abnormal load to be delivered to the nearest landing point to its destination. We evaluate each application individually based on the criteria provided to make best use of the SRN wherever possible, thereby avoiding congestion to other road users.

We presume in this instance the Transformer is being imported from abroad. Based on the information you have provided Highways England preferred port of delivery would be Ramsgate. Dover and Tilbury would not be considered at this point. We have previously cleared routes for Transformers to Richborough Energy Park via Ramsgate.

We appreciate this is an access study at this point but if you could provide the following information this will help us assess any future applications in greater detail.

- Has an inland waterway option been explored using the River Stour direct to site
- What are the costs of the components being transported
- Is there a planned schedule of delivery of components relating to Special Order category

Once an application is received and processed we distribute to all affected authorities on the designated route. Once we have received all acceptable confirmations that there are no restrictions to the route, the authorised Special Order for movement will be issued.

Highways England use the ESDAL system for VR1 and Special Order applications and any enquiries would preferably be applied for using this method.

I trust this will go some way to helping with your assessment, but please feel free to contact me should you require any further information.

Regards,

John

**John Powell**

**Assistant Strategy & Customer Manager**

Highways England | The Cube | 199 Wharfedale Street | Birmingham | B1 1RN

Web: <http://www.highways.gov.uk>

---

**From:** Ford, Luke

**Sent:** 21 February 2018 18:21

**To:** Abnormal Loads

**Cc:** Bown, Kevin; Simms, Adrian

**Subject:** Thanet Extension Offshore Wind Farm AIL Study

Dear Sir/Madam,

Further to my correspondence with Kevin Bown (30/10/17) regarding the proposed DCO application for the Thanet Extension Offshore Wind Farm project, we have been commissioned by Vattenfall to undertake an Abnormal Indivisible Load (AIL) access study for the delivery of AILs associated with the proposed Thanet Extension Offshore Wind Farm (Thanet Extension).

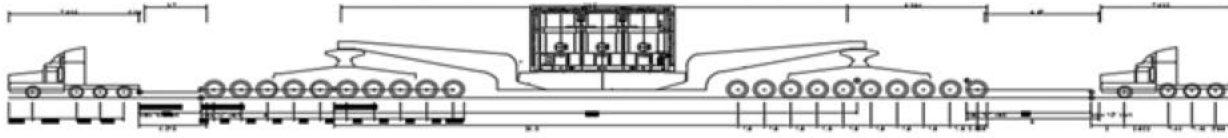
The project comprises of proposed wind turbines and all infrastructure required to transmit the power generated by the turbines to the national grid network at the grid connection located at Richborough Energy Park. It also comprises onshore and offshore infrastructure required to operate and maintain the wind farm and associated infrastructure.

Following previous discussions concerning general HGV construction traffic and potential impact to the SRN, we wish to consult Highways England on the delivery of substation transformer equipment (Super Grid Transformer (SGT)/Transformer Tank) between three potential ports of entry and the development Site.

Access for all substation AILs will be facilitated via the existing A256 (Ramsgate Road)/Richborough Energy Park roundabout [currently provides access to the BCA Fleet Solutions unit]. <https://goo.gl/maps/1bEe1NjRsVy>

### **Abnormal Load Requirements / dimensions**

The type of transfer vehicle being considered in this assessment is a 20-axle Girder Frame Trailer (GFT). The vehicle configuration used to transfer the abnormal loads will ultimately be decided by the appointed haulier, however, the configurations selected are considered to be a robust representation. Vehicle specifications are as follows.



A600 20 Axle Girder Trailer	
Overall Length	73.537m
Overall Width	4.760m
Overall Body Height	5.389m
Min Body Ground Clearance	0.426m
Max Track Width	3.650m
Lock-to-lock time	6.00s
Wall to Wall Turning Radius	10.450m

### Specification of 20-Axle GFT with load

Aspect	Value
Weight	342,200 kg*
No. of Axles	20
Axle Weight	17,110 kg x 20
Wheels per Axle (Wheels x No. of Axles)	8 x 20
Axle Spacing	(9 x 1600) x 2
Tyre Size	215/75 R17.5 x 20
Length	48.1m
Total Configuration Length	73.7m
Width	4.8m
Typical Running Height	4.7m
Wheelbase	16.1m
Rear Overhang	0.0m
Ground Clearance	0.3m
Outside Track	3.7m

The largest component to be transported will be the 400kV transformer tank body. The transformer tank body is not expected to exceed 360 tonnes and has an approximate envelope dimension of 11.0m x 4.5m x 4.9m.

### Ports of Entry

Three potential ports of entry have been considered for the delivery of transformer components. These are detailed as follows:

- Port of Tilbury – The Port of Tilbury is London’s major port located with excellent access to the SRN (M25). The port experiences a large number of daily HGV movements and has capacity to receive AILs.
- Port of Dover – The Port of Dover is the UK’s busiest passenger port and the busiest roll-on-roll-off ferry port in Europe. The port provides ease of access to the A2 with connection northbound via the A256 to the Site. Due to the number of HGV movements experienced through the port daily, it is assumed that this will accommodate the access of the AIL for transportation of transformer components.
- Port of Ramsgate – The Port of Ramsgate is well connected to the strategic road network, with the A299 and A256 acting as the main westbound and southbound connections respectively. The port received AILs as part of the

NEMO project and is deemed suitable for the delivery of transformer components. The Port is the closest to the proposed development site and would therefore be the most cost effective.

### **Access Routes**

Four potential route options are currently being considered for transportation of the SGT. These are as follows:

- Route Option 1 – Routing from the Port of Tilbury, along the SRN, accessing the Site from the north;
  - o **Route:** Port of Tilbury – A1089 Dock Approach Road – A13 – A282 Queen Elizabeth Bridge – A2 – M2 – A299 Thanet Way – A299 – A299 Hengist Way – A256 Richborough Way – Site
- Route Option 2 – Routing from the Port of Dover, along the SRN, accessing the Site from the south;
  - o **Route:** Port of Dover – A2 Jubilee Way – A256 – Site
- Route Option 3 – Routing from the Port of Ramsgate, along the LRN and SRN, accessing the Site from the north.
  - o **Route:** Port of Ramsgate – Royal Harbour Approach – A299 Canterbury Road East – Sandwich Road – A256 – Site
- Route Option 3a – Routing from the Port of Ramsgate, along the LRN and SRN, accessing the Site from the north.
  - o **Route:** Port of Ramsgate – Royal Harbour Approach – A299 Canterbury Road East – A299 Hengist Way – A256 Richborough Way – Site

For the purpose of this assessment, it has been assumed that the AIL will straddle both running lanes on dual carriageway sections. No weight or height restrictions have been identified along the sections of the strategic road network.

If you could provide any feedback on the information outlined above that would be very much appreciated.

In the meantime, should you require any further information, please feel free to contact myself on the details below, or my colleague Adrian Simms (cc'd in to this email).

Kind regards

Luke

**Luke Ford MCIHT**

Transport Planning Consultant

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**From:** Simms, Adrian [REDACTED]  
**Sent:** 12 March 2018 16:51  
**To:** [REDACTED]  
**Cc:** Wood, Martin [REDACTED] Sean Leake [REDACTED]  
**Subject:** RE: Thanet Offshore Wind Farm Extension - Pre application

Hi Richard,

Hope you are well.

We are now in a position to provide more detail on the predicted traffic movements associated with the Thanet Extension project and respond to queries previously raised.

I also seek clarification for the need to undertake a Transport Assessment (TA) for this scheme. Hopefully the information provided allows this.

Construction Phase:

- The construction programme is expected to last approx. 30 months = 947 days
- 12-hour working day / 6 days per week will apply
- There will be a 'winter break' (approx. 16 weeks) when activities will cease (no vehicle movements occur)
- There are 154 days when no movements occur due to phasing

Light Vehicles:

- 48 two-way (24 in, 24 out) average daily staff light vehicle movements
- 106 two-way (53 in, 53 out) peak staff light vehicle movements (occurs on one day)
- Shift patterns for staff won't be known at this stage but given that the working day is 0700-1900, we can assume most staff will arrive/depart outside of the peak network hours.

HGVs:

- HGVs will access the site via the A256 (Richborough Energy Park RAB) and Sandwich Road depending on the activity.
- 702 two-way (351 in, 351 out) peak HGVs (movements occur on three consecutive days of the programme and will route via Sandwich Road to one of the access points.)
- Please see spreadsheet attached for further vehicle movement information\*. Identified are the programme peak HGV movements, number of days they occur on and the associated activity. From this information I have assigned a highway link that would be used to access/deliver/remove materials to the activity site. A percentage impact is also shown using future growthed baseline traffic flows for that highway link.

\*Please note the programme shown is indicative for the purposes of the EIA. It is by no means the final construction programme but allows us to assess the worst-case scenario.

ALLs

- Abnormal loads would be avoided where practicable
- We anticipate two ALL load delivered to the substation in the form of substation transformers
- An ALL Access Study has been undertaken and assesses routes from potential ports of entry to site and SRN (M2/A2) - (previously consulted on this matter 06/03/18)
- Potential ports of entry considered: Tilbury, Dover, Ramsgate

Offshore Wind Farm

- Offshore wind farm construction is not anticipated to generate any HGV trips to the Port of Ramsgate
- Staff light vehicle movements associated with the offshore wind farm construction are assumed to be low in volume and can be scoped out of further assessment. *(I will seek clarification of a number if possible)*

Construction trips are based on a indicative 30 month programme. Whilst peaks occur across this programme, any impact is assumed to be temporary in a nature.

Operation and Maintenance Phase

Cable:

- One two-way staff trip per week will be made for the onshore cable works

Substation:

- Substation will be unmanned however, it will on average generate one two-way staff trip per week made by Light vehicle

Offshore Wind Farm

- 24 two-way HGV movements per year
- *Wood to confirm staff light vehicle movements asap.*

If you have any queries please do not hesitate to get in touch.

I'll be in touch shortly to clarify outstanding points above.

Best wishes,  
Adrian

**Adrian Simms MRTPI**  
Principal Transport Planner  
Wood Environment & Infrastructure Solutions UK



---

From: Simms, Adrian [Redacted]  
Sent: 20 December 2017 10:17  
To: [Redacted]  
Cc: [Redacted]  
Subject: RE: Thanet Offshore Wind Farm Extension - Pre application

Hi Richard,



Thanks for your email and confirming the requirement for an AIL assessment.

I fully appreciate the need for greater detail regarding construction movements both staff and HGVs. I will liaise with my client and emphasise the importance of providing this information.

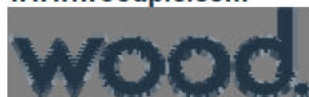
Season's greetings for a Merry Christmas and Happy new year 2018,

Many thanks

**Adrian Simms MRTPI**  
Principal Transport Planner  
Environment & Infrastructure Solutions



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---

**From:** [Redacted]

**Sent:** 20 December 2017 10:05

**To:** [Redacted]

**Cc:** [Redacted]

**Subject:** RE: Thanet Offshore Wind Farm Extension - Pre application

Hi Adrian,

With regard to abnormal loads there will need to be an assessment of the route for the same, to establish if any temporary accommodation works are required in the highway to facilitate the passage of the AIL and to assess the suitability of the route in relation to highway structures and loading.

As previously advised in my email of 20<sup>th</sup> September we need a breakdown of when the construction-related movements are likely to occur, including those associated with the offshore works, to determine what extent of the highway network (if any) needs to be assessed in capacity terms. I appreciate that the HGV movements are likely to be spread across the working day but the site personnel movements are not. They may not occur during network peak hours which may negate the need for any assessment, but we need some clarification on that point, as well as details of any movements associated with the offshore works.

Regards,

Richard

Richard Smith  
Senior Development Planner  
Kent County Council  
Highways and Transportation

Ashford Highway Depot  
4 Javelin Way  
Ashford TN24 8AD

---

**From:** Simms, Adrian [REDACTED]  
**Sent:** 30 November 2017 16:28  
**To:** Smith, Richard - GT HTW  
**Cc:** Ford, Luke; Wraight, James - GT HTW; Wraight, Emma - GT HTW; Wadhams, Darren - GT HTW  
**Subject:** FW: Thanet Offshore Wind Farm Extension - Pre application

Hi Richard,

We recently submitted a final draft of the Transport PEIR Chapter to stakeholders for comment.

Since my last email (below), in agreement with the client, the anticipated traffic movements have been updated, and as a result, has required revisions to be made to the assessment to establish the new percentage increases.

I provide the revised traffic information here:

### Construction Phase

Anticipated peak two-way HGV and LV trips - construction

Development Phase	Peak two-way HGV Trips per Day	Peak two-way LV Trips per Day
Onshore Cable	100	100
Onshore Substation	150	150
Total	250	250

Please note the above movements are the **worst-case** peak movements. It is unlikely that this would ever been seen on the network however, for the purposes of the PEIR submission we have to consider worst-case scenarios.

HGV travel profiles are assumed to be distributed evenly over a 12-hour construction day (equating to approximately 20 two-way HGVs per hour).

Greater detail on the anticipated monthly/daily movements will be known as the project progresses and a programme is identified. This will be provided to you once known (expected early January).

Summary of predicted increase in average weekly two-way traffic

Road Link	Future baseline all vehicles	Future baseline HGVs (includes MGVs)	Future baseline LV flows	Predicted HGV flows	Predicted LV flows	Predicted increase all vehicles (%)	Predicted HGV increase (%)	Predicted LVs increase (%)
A299 Hengist Way (N)	18,961	1,424	17,537	250	250	2.6	17.6	1.4
A299 Hengist Way (E)	28,805	1,363	27,442	-	250	0.9	-	0.9



Road Link	Future baseline all vehicles	Future baseline HGVs (includes MGVs)	Future baseline LV flows	Predicted HGV flows	Predicted LV flows	Predicted increase all vehicles (%)	Predicted HGV increase (%)	Predicted LVs increase (%)
A256 Richborough Way	23,672	1,298	22,374	250	250	2.1	19.3	1.1
A256 (S)	26,826	1,356	25,470	250	250	1.9	18.4	1.0
A299 Canterbury Road (E)	20,221	774	19,447	-	250	1.2	-	1.3

#### Construction Vehicle Routing

It is anticipated that all construction HGVs will route to the site via the A299 Hengist Way (N) and A256 from the south. All HGVs will enter the development Site via the A256/ Richborough Energy Park Roundabout. No HGVs will route on Sandwich Road due to the fact that it is a traffic calmed road which routes through the settlement of Cliffsend. This would be enforced through the TMP. HGVs are highly unlikely to route on the A299 Hengist Way (E) or the A299 Canterbury Way (E) due to the location of the primary site access and the assumed origins of material and equipment.

#### Construction Programme

The civil commissioning of the substation would occur after the substation is built up so for whole substation commissioning we would consider a period of 24 months (12 months with heavy civils and 12 months M&E installation and commissioning with the reduced number of HGVs for this period).

#### Operation Phase

Cable Works - It is anticipated that less than one two-way staff trip per week will be made for the onshore cable works.  
Onshore substation - The substation will be unmanned however, it will on average generate one two-way staff trip per week made by LV.  
Offshore Wind Farm (OWF) - It is anticipated that there could be in the region of 50 two-way maintenance trips per day associated with the OWF (at this stage the Base Port/Office location is unknown – I am unable to identify which links would be impacted upon). It is anticipated that there could be in the region of 24 two-way HGV movements per year associated with the O&M of the OWF.

#### Abnormal loads

As before, it is understood that abnormal loads will be delivered to the Site (likely Transformers and Cable Drums). The details of these are yet to be established.  
Are you able to provide an indication if an AIL study is likely to be required and the likely study area you would expect to see SPAs undertaken?

#### Transport Assessment?

As previously discussed, we're looking to you to provide a steer or whether a Transport Assessment (TA) is needed. I appreciate that there are still information gaps and the traffic movements provided above are based on worst-case peak movements.  
I would be grateful if you could respond with your thresholds and information requirements so that I can specifically request this from the client and work to providing you with some meaningful data.

If you have any queries, please do not hesitate to get in touch.

Kind regards,  
Adrian

(as of 09 October we are now trading as Wood plc after a recent merger of the Wood Group and Amec Foster Wheeler)

**Adrian Simms MRTPI**

Principal Transport Planner  
Environment & Infrastructure Solutions

[Redacted]  
[Redacted]  
[Redacted]  
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**From:** Simms, Adrian

**Sent:** 29 September 2017 12:44

**To:** [Redacted]

**Cc:** Gardner, Oliver W [Redacted] Ford, Luke [Redacted]

**Subject:** RE: Thanet Offshore Wind Farm Extension - Pre application

Hi Richard,

I can confirm the cable landfall will be at Pegwell Bay. The cable route is yet to be determined however, to assess a worst case scenario within the PEIR Traffic and Transport Chapter, we assume part of the cable will route within Sandwich Road and require single lane and full road closures for temporary periods (at this stage durations are unknown but could be in the region of 3 months).

Construction activities will be conducted during working hours of 7am - 7pm where practicable however, some discrete locations may require 24 hour working, such as during commissioning. Shift working patterns are unknown at this stage of the scheme.

We assume that the 106 HGV movements will be arrive/depart throughout the 12-hour working day and be managed by a CTMP (as before, specific detail isn't available at this stage nor would be until a contractor is appointed). It is understood that this is the peak number of construction HGV trips as a result of the substation and cable construction phases running simultaneously for a period of approximately 3 months.

200 light vehicle trips are associated with construction personnel arriving/departing the site. Shift patterns are unknown however, we could assume that these will occur during peak periods (to assess the worst case situation). With potential closures on Sandwich Road and to avoid receptors in the Cliffsend area, it is the intention that all personnel trips and HGV trips will avoid Sandwich Road where possible and route to the site via the A299 and A256 to the A256/Richborough Energy Park roundabout (where access to the site is to be taken). It is inevitable that some construction HGV and personnel trips may occur on Sandwich Road however, will not route in from the north via Cliffsend.

Construction personnel relating to offshore turbine activities will be confirmed shortly. It is likely that most personnel will stay on accommodation vessels offshore and few trips would be associated with offshore construction personnel at and around Ramsgate.



I have a conference call on Monday 02 October with the client and will be able to clarify construction vehicle movements and personnel trips. I'll update accordingly.

Many thanks,  
Adrian

**Adrian Simms MRTPI**

Senior Transport Planning Consultant - Planning, Transport & Design, Environment & Infrastructure Europe, Amec Foster Wheeler

Gables House, 62 Kenilworth Road, Royal Leamington Spa, CV32 6JX, UK

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**From:** [REDACTED]  
**Sent:** 20 September 2017 08:48  
**To:** Simms, Adrian [REDACTED]  
**Cc:** Gardner, Oliver W [REDACTED] Ford, Luke [REDACTED]  
**Subject:** RE: Thanet Offshore Wind Farm Extension - Pre application

Hi Adrian,

Firstly, can you please confirm that the cable landfall will be Pegwell Bay rather than Sandwich Bay? These were the original options and I am not aware that this has been clarified. As previously advised it would be far more problematic getting construction traffic and a cable through Sandwich. It is difficult to provide a steer on the TA and extent of network assessment required without this information.

Secondly, I need a further breakdown on when the vehicle movements in your email are likely to occur. I assume the 106 HGV movements each day will be spread out across the day but confirmation of this is required together with the likely daily hours, times and total number of days over which these movements will occur. Are the 200 light vehicle trips mostly associated with construction personnel going to/from the Richborough site and if so, are these mainly at the start and end of each working day? Further details are required on the hours, times and total number of days for these movements. Are the HGV and light movements quoted inclusive of those related to the installation of the additional turbines off-shore as well as the cable laying and sub-station construction? If so, how many movements will be to/from the port where materials and personnel will be taken to/from the off-shore site and again what are the hours, times and total number of days for these?

As previously advised any wider surveys/information gathering requirements for environmental impacts would be advised by the relevant Environmental Health/Planning Authorities. Assuming the planning application would involve both Thanet and Dover District Councils, I suggest you will need to seek such advice from them both.

I look forward to hearing from you with the additional information.

Regards,

Richard

Richard Smith  
Senior Development Planner  
Kent County Council  
Highways and Transportation  
Ashford Highway Depot  
4 Javelin Way

**From:** Simms, Adrian [REDACTED]  
**Sent:** 04 September 2017 18:15  
**To:** Smith, Richard - GT HTW  
**Cc:** Gardner, Oliver W; Ford, Luke; Wraight, James - GT HTW; Wraight, Emma - GT HTW; Wadhams, Darren - GT HTW  
**Subject:** RE: Thanet Offshore Wind Farm Extension - Pre application

Hi Richard,

Further to our previous correspondence, we are able to provide you with detail on HGV & LV movements associated with the construction & operation phases of the landfall cable, substation and offshore wind farm.

**Construction**

Due to the uncertainty in vehicle routing to/ from the Site, 100% of anticipated HGV flows relating to the onshore landfall cable and substation have been applied to the A256 north and southbound, representing a worst case assessment.

Personnel trips relating to the onshore landfall cable have been applied to Sandwich Road, with those attributed to the onshore substation routing via the A256. All HGV traffic for the landfall cable will enter the Site via the roundabout with the A256/ Sandwich Road.

No HGV traffic will route on Sandwich Road.

Development Phase	Peak two-way HGV Trips per Day (0700-1900)	Peak two-way light vehicle Trips per Day (0700-1900)
Onshore Landfall Cable	6	100
Onshore Substation	100	100
<b>Total</b>	<b>106</b>	<b>200</b>

These daily trips have been added to the future baseline year of 2021 to assess the impact, detailed in the table below.

Summary of predicted increases in average weekday two-way traffic

Road Link	Baseline flows (all vehicles)	Baseline HGV flows	Baseline light vehicle flows	Predicted HGV flows	Predicted light vehicle flows	Predicted increase all vehicles (%)	Predicted HGV increase (%)	Predicted light vehicles increase (%)
Sandwich Road	3,027	3	3,024	0	100	3.3	0	3.3
A299 Hengist Way (N)	12,606	206	12,400	106	100	1.6	51.4	0.8



Road Link	Baseline flows (all vehicles)	Baseline HGV flows	Baseline light vehicle flows	Predicted HGV flows	Predicted light vehicle flows	Predicted increase all vehicles (%)	Predicted HGV increase (%)	Predicted light vehicles increase (%)
A299 Hengist Way (E)	27,581	350	27,231	106	100	0.7	30.3	0.4
A256 Richborough Way	22,660	365	22,295	106	100	0.9	29.0	0.4
A256 (S)	25,632	371	25,261	106	100	0.8	28.6	0.4
A299 Canterbury Road (E)	19,321	130	19,191	106	100	1.1	81.5	0.5

As the table shows, we have assumed 100% of traffic will be distributed on the A299, and A256. We have no confirmation on final routing, so this approach accounts for a worst-case. Once we know final routing the impact is expected to decrease.

#### Operation

Once Thanet Extension, associated landfall cable and substation elements of the development are complete, very few operational trips are expected to be generated. Most facilities are expected to be unmanned however, may require periodic maintenance related visits.

The substation will be unmanned however, it will on average generate one staff trip per week made by light vehicle. Fewer trips will be made for the onshore landfall cable.

It is anticipated that there could be in the region of 80 two-way maintenance trips per year associated with the maintenance of the offshore wind farm.

#### EIA Assessment

The assessment approach as listed out in the email below. This has been used to produce the draft Preliminary Environmental Information Report (PEIR). I note that no comment has been made on this approach, methodology and magnitude of impact criteria to date. Are you in a position to provide any feedback on this? If not, are you able to provide a contact for someone who would?

#### Transport Assessment

Based on the information provided, are you able to confirm if a Transport Assessment is required?

As detailed above, the percentage impact exercise is based on a worst-case scenario whereby 100% of generated construction traffic routes on the roads identified above and where construction phases occur simultaneously. In reality, this is unlikely to happen once a routing strategy is determined and staff travel plan is in place.

I will liaise with Kevin Bown (Highways England) and pass on this information so that he too, is in a position to determine what, if any, impact there is on the SRN.

If you have any questions, please do not hesitate to contact me.

Regards,  
Adrian

**Adrian Simms MRTPI**

Senior Transport Planning Consultant - Planning, Transport & Design, Environment & Infrastructure Europe, Amec Foster Wheeler

Gables House, 62 Kenilworth Road, Royal Leamington Spa, CV32 6JX, UK

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**From:** [REDACTED]

**Sent:** 21 June 2017 10:40

**To:** Simms, Adrian [REDACTED]

**Cc:** Gardner, Oliver W [REDACTED] Ford, Luke [REDACTED]

**Subject:** RE: Thanet Offshore Wind Farm Extension - Pre application

Hi Adrian,

It is not clear from your email but I assume this is not just in relation to the cable laying element of the proposed wind farm extension, as per our previous correspondence. I can only comment on the extent of surveys, etc. required to assess the highway impact in relation to the Transport Assessment. Any wider surveys/information gathering requirements for environmental impacts can presumably be advised by the relevant Environmental Health/Planning Authorities.

In relation to the Transport Assessment it was previously agreed that the pragmatic approach would be for you to supply us with details of construction and operational trip generation and distribution for activities associated with cable laying and the offshore wind farm once received from Vattenfall. Once details have been supplied we will have a better understanding on the potential impact on the LRN and SRN. We can then advise you on the level of assessment required for cable laying/offshore wind farm, including the extent of any surveys required.

Without this data we cannot confirm that the survey locations listed at the end of your email are correct or sufficient.

Regards,

Richard

Richard Smith  
Senior Development Planner  
Kent County Council  
Highways and Transportation  
Ashford Highway Depot  
4 Javelin Way  
Ashford TN24 8AD

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**From:** Simms, Adrian [REDACTED]

**Sent:** 13 June 2017 16:05

**To:** Smith, Richard - GT HTW

**Cc:** Gardner, Oliver W; Ford, Luke; Wraight, James - GT HTW; Wraight, Emma - GT HTW; Wadhams, Darren - GT HTW

**Subject:** FW: Thanet Offshore Wind Farm Extension - Pre application



Hi Richard,

In advance of a meeting to be held with Vattenfall on 11 July, I'm hoping you will be in a position to confirm the method of assessment and data collection for the purposes of the Traffic and Transport ES chapter.

#### **Assessment Approach:**

- The principal guidelines for the assessment of environmental impacts contained in *Guidance Notes No.1: Guidelines for the Environmental Assessment of Road Traffic* (GEART) (Institute of Environmental Assessment, 1993) will be followed.
- The assessment will consider two scenarios:
  - Construction Phase – construction traffic associated with underground cable only (offshore staff trips may be considered, assumed all equipment to offshore site will arrive from offshore and not via Ramsgate); and
  - Operational Phase – Operation trips (very few expected)
- In line with GEART, the likely percentage increase in traffic will be determined by comparing estimates of construction traffic with baseline traffic flows (during year of construction) and traffic generated by the proposed development with future predicted baseline traffic flows on the road links in vicinity of the site (Sandwich Road, A299, A256)
- GEART identifies the following rules to be used as a screening process to define the scale and extent of assessment on the links above:
  - Rule 1: Include highway links where traffic flows are predicted to increase by more than 30% (or where the number of HGVs is predicted to increase by more than 30%).
  - Rule 2: Include sensitive areas where traffic flows are predicted to increase by 10% or more.
- Receptor sensitivity is defined below.
  - High - Receptors of greatest sensitivity to traffic flows: schools, colleges, playgrounds, accident blackspots, retirement homes, urban/residential homes without footways that are used by pedestrians (Paragraph 2.5 IEMA Guidelines, 1993);
  - Medium - Traffic flows sensitive receptors including: congested junctions, doctors' surgeries, hospitals, shopping areas with roadside frontage, roads with narrow footways, unsegregated cycleways, community centres, parks and recreation facilities;
  - Low - Receptors with some sensitivity to traffic flow: places of worship, public open space, nature conservation areas, listed buildings, tourist attractions and residential areas with adequate footway provision; and
  - Negligible - Receptors with low sensitivity to traffic flows and those sufficiently distant from affected roads and junctions.
  - Sensitivity judged as Low or Negligible results in Rule 1 being considered for that highway link. Sensitivity judged as High or Medium results in Rule 2 being considered for that highway link.
- Magnitude of impact criteria identified below:

Transport Effect	Magnitude of Impact			
	Major	Moderate	Minor	Negligible
Driver Delay	Change in total traffic or HGV flows over 90%	Change in total traffic or HGV flows of 60-90%	Change in total traffic or HGV flows of 30-60%	Change in total traffic or HGV flows of less than 30%
Public Transport Delay	Change in total traffic or HGV flows over 90% And/or Any change to total journey times by public transport of more than 80% lasting for more than four weeks in any 12 month period	Change in total traffic or HGV flows of 60-90% And/or Any change to total journey times by public transport of 60-80% lasting for more than four weeks in any 12 month period	Change in total traffic or HGV flows of 30-60% And/or Any change to total journey times by public transport of 40-60% lasting for more than four weeks in any 12 month period	Change in total traffic or HGV flows of less than 30% And/or Any change to total journey times by public transport of 20-40% lasting for more than four weeks in any 12 month period
Pedestrian Amenity	Change in total traffic or HGV flows over 90%	Change in total traffic or HGV flows of 60-90%	Change in total traffic or HGV flows of 30-60%	Change in total traffic or HGV flows of less than 30%
Pedestrian Severance	Change in total traffic or HGV flows over 90% And/or Where there will be a temporary maximum increase in pedestrian journey length of 500 m or more along a road or other public right of way for more than 6 months over a 12 month period	Change in total traffic or HGV flows of 60-90% And/or Where there will be a temporary maximum increase in pedestrian journey length of 250 m – 500 m along a road or other public right of way for a 3-6 month period over 12 months	Change in total traffic or HGV flows of 30-60% And/or Where there will be a temporary increase in pedestrian journey length of up to 250 m along a road or other public right of way for between 4 weeks and 3 months over a 12 month period	Change in total traffic or HGV flows of less than 30% And/or Where there will be no temporary increase in pedestrian journey length.
PRoW	Change in total traffic or HGV flows over 90% And/or Where there will be a temporary maximum increase in pedestrian journey length of 500 m or more along a road or other public right of way for more than 6 months over a 12 month period	Change in total traffic or HGV flows of 60-90% And/or Where there will be a temporary maximum increase in pedestrian journey length of 250 m – 500 m along a road or other public right of way for a 3-6 month period over 12 months	Change in total traffic or HGV flows of 30-60% And/or Where there will be a temporary increase in pedestrian journey length of up to 250 m along a road or other public right of way for between 4 weeks and 3 months over a 12 month period	Change in total traffic or HGV flows of less than 30% And/or Where there will be no temporary increase in pedestrian journey length

Transport Effect	Magnitude of Impact			
	Major	Moderate	Minor	Negligible
Accidents and Road Safety	Informed by a review of existing collision patterns and trends based upon the existing personal injury accident records and the forecast increase in traffic	Informed by a review of existing collision patterns and trends based upon the existing personal injury accident records and the forecast increase in traffic	Informed by a review of existing collision patterns and trends based upon the existing personal injury accident records and the forecast increase in traffic	Informed by a review of existing collision patterns and trends based upon the existing personal injury accident records and the forecast increase in traffic

### Data Collection

- Traffic flow data surveys have been commissioned at Sandwich Road, A256, A299.
- Surveys have collected classified 12hour flows
- Classified PIA data has also been sought from KCC on the roads identified above
- Pedestrian counts have been undertaken on the Cycle path adjacent to Sandwich Road over two days including mid-week and weekend.

If you have any concerns or queries with regard to this approach, please do not hesitate to get in touch ahead of the proposed meeting on 11 July.

Kind regards,  
Adrian

### **Adrian Simms MRTPI**

Senior Transport Planning Consultant - Planning, Transport & Design, Environment & Infrastructure Europe, Amec Foster Wheeler  
Gables House, 62 Kenilworth Road, Royal Leamington Spa, CV32 6JX, UK

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From: Simms, Adrian

Sent: 02 June 2017 10:50

To: 'Richard.Smith@kent.gov.uk'

Cc: Gardner, Oliver W

Ford, Luke

Subject: RE: Thanet Offshore Wind Farm Extension - Pre application

Hi Richard,

Thank you for your email.

Further to our discussion I can confirm that the Scoping Report (by Royal Haskoning) Page 250 states that *“Once more detail of the proposed traffic demand is known a more detailed transport scoping note would be prepared and submitted to the highway authority to confirm the scope of the impact assessment included in the EIA”*.



As discussed, the pragmatic approach will be for us to supply you with details of construction and operational trip generation and distribution for activities associated with cable laying and the offshore wind farm once received from Vattenfall.

Once details have been supplied, AFW and KCC will have a better understanding on the potential impact on the LRN and SRN. KCC can then advise AFW on the level of assessment required for cable laying/offshore wind farm.

We acknowledge the requirement to prepare a CTMP.

Many thanks,  
Adrian

**Adrian Simms MRTPI**

Senior Transport Planning Consultant - Planning, Transport & Design, Environment & Infrastructure Europe, Amec Foster Wheeler

Gables House, 62 Kenilworth Road, Royal Leamington Spa, CV32 6JX, UK

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**From:** [REDACTED]

**Sent:** 19 May 2017 08:44

**To:** Simms, Adrian [REDACTED]

**Subject:** RE: Thanet Offshore Wind Farm Extension - Pre application

Adrian,

Previous correspondence mentioned two options for the cable route, the other one starting from Guilford Road in Sandwich. I note your email does not make reference to this and I therefore hope that this is now not an option, as it would be far more problematic getting construction traffic and a cable through Sandwich. My comments are therefore based on the cable route from Pegwell Bay.

I don't think there is a need to carry out a separate Transport Assessment (TA) just for the laying of the cable but you will clearly need to prepare a Construction Management Plan which should include the following:

- Access points to/from the highway for site compounds (ensuring they are of a suitable size that vehicles can turn in/out in a single manoeuvre and have suitable visibility)
- Parking and turning areas for plant, delivery vehicles and site personnel
- Wheel washing facilities
- Anticipated daily and peak hour vehicle movements associated with the works
- Timing and phasing of the works
- Detailed route of the cable
- Construction method (I believe you may be required to 'mole' the cable under the A256)
- Temporary traffic management measures (TTMM) required – these will vary depending on exactly where within the highway the cable is being laid, phasing, etc. I strongly advise early discussion and agreement with our Streetworks Team in respect of TTMM (I have copied our Roadworks Coordinators for the Thanet and Dover areas in to this email – the cable route runs through both districts).

You are no doubt aware that a cable is being laid from Pegwell Bay to Richborough as part of the Project Nemo connection to Belgium. This is being laid mostly in the cycle path on the route, although it will then have to follow the A256 into Richborough. This may well have an impact on your preferred cable route and timing of the same.

With regards to the construction of the wind farm extension itself I am aware that the EIA screening document confirmed that a TA would be prepared, the scope of which would be agreed with the highway authority. I assume this will be forthcoming at a later date and does not form part of your remit at present.

I hope the above is of assistance and I am happy to attend a meeting with yourself and our Roadworks Coordinators if you feel that would be useful at this time.

Please contact me if you have any queries.

#### Important Notes

Any advice given by Council officers for pre-application enquiries does not indicate a formal decision by the Council as the Highway Authority. Any views or opinions are given in good faith, and to the best of ability, without prejudice to the formal consideration of any planning application.

The final decision on any application that you may then make can only be taken after the Planning Authority has consulted local people, statutory consultees and any other interested parties. The final decision on an application will then be made by senior officers or by the respective Local Planning Authority and will be based on all of the information available at that time.

You should therefore be aware that officers cannot guarantee the final formal decision that will be made on your application(s).

Any pre-application advice that has been provided will be carefully considered in reaching a decision or recommendation on an application; subject to the proviso that circumstances and information may change or come to light that could alter that position.

It should be noted that the weight given to pre-application advice will decline over time.

Regards,

Richard

Richard Smith  
Senior Development Planner  
Kent County Council  
Highways and Transportation  
Ashford Highway Depot  
4 Javelin Way  
Ashford TN24 8AD  
[REDACTED]

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**From:** Simms, Adrian [REDACTED]  
**Sent:** 12 May 2017 13:21  
**To:** Wraight, James - GT HTW  
**Cc:** Jones, Amy - GT HTW; Smith, Richard - GT HTW; Gardner, Oliver W; Ford, Luke  
**Subject:** RE: Thanet Offshore Wind Farm Extension - Pre application

Dear Richard,

Please find the pre-application form attached. This is quite hard to complete given the proposal doesn't comply with the typical developments the form is set up for.

As you will be aware, Vattenfall Wind Power propose to extend the existing Thanet Offshore Wind Farm. Formal consultation has already been provided by KCC as part of the DCO and EIA screening process.

We are currently in the process of completing a PEIR and EIA for the proposed extension. I am delivering the Traffic and Transport chapter and my concerns relate purely to traffic and transport.

Can KCC confirm if there is a requirement to undertake additional assessments as part of the provision of the proposed underground cable route? Is a Transport Assessment necessary, given we are undertaking an EIA.

If I can provide you with anything else, please do not hesitate to contact me.

Regards,  
Adrian

**Adrian Simms MRTPI**

Senior Transport Planning Consultant - Planning, Transport & Design, Environment & Infrastructure Europe, Amec Foster Wheeler

Gables House, 62 Kenilworth Road, Royal Leamington Spa, CV32 6JX, UK

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**From:** [REDACTED]  
**Sent:** 11 May 2017 15:43  
**To:** Simms, Adrian  
**Cc:** [REDACTED]  
**Subject:** Re: Thanet Offshore Wind Farm Extension - Traffic and Transport (Traffic & Accident Data)

Hi Adrian

We have now received your pre app purchase order for the [REDACTED] but we will need a completed pre application request form from you to progress this. Could you send these to Amy (copied) please.

Richard Smith will be your point of contact for the pre app.

Thanks

James

Sent from my mobile device

On 10 Apr 2017, at 10:54, Simms, Adrian [REDACTED] wrote:

Hi April,

I understand James Wraight is on annual leave until the 17<sup>th</sup>.

In his absence, could the fee for the Highway pre-application advice (see below) be added to the PPA?

Please let me know if this is acceptable.

Kind regards,  
Adrian

**Adrian Simms MRTPI**

Senior Transport Planning Consultant - Planning, Transport & Design, Environment & Infrastructure  
Europe, Amec Foster Wheeler

Gables House, 62 Kenilworth Road, Royal Leamington Spa, CV32 6JX, UK

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**From:** [REDACTED]  
**Sent:** 06 April 2017 13:24  
**To:** Simms, Adrian [REDACTED]  
**Cc:** Gardner, Oliver W [REDACTED]; Ford, Luke [REDACTED]  
**Subject:** RE: Thanet Offshore Wind Farm Extension - Traffic and Transport (Traffic & Accident Data)

Hi Adrian,

[REDACTED]

I am on leave until the 17<sup>th</sup>. But you can direct the completed pre app forms to my colleague Richard Smith (he responded to the original EIA scope).

Thanks

James

**James Wraight** | Principal Transport & Development Planner | Highways & Transportation | Kent  
County Council | Ashford Highway Depot, Henwood Industrial Estate, Javelin Way, Ashford, Kent, TN24  
[REDACTED] [www.kent.gov.uk](http://www.kent.gov.uk) |

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**From:** Simms, Adrian [<mailto:Adrian.Simms@amecfw.com>]  
**Sent:** 04 April 2017 13:12  
**To:** Wraight, James - GT HTW; Bengé, Sally - GT HTW  
**Cc:** Newing, April - GT EPE; Gardner, Oliver W; Ford, Luke  
**Subject:** RE: Thanet Offshore Wind Farm Extension - Traffic and Transport (Traffic & Accident Data)

Hi James,

Due to the nature of our scheme and the fact that it is being submitted as a DCO, it's not clear from the pre-app form which price category an underground cable would fit.

As previously discussed, we are involved in producing the Traffic and Transport ES chapter as part on the onshore underground cable element to the Thanet Offshore Wind Farm Extension. Two route corridor options currently exist; either ~2.5km or ~7km in length and would connect into Richborough Substation.



If you require further information to assist in determining the pre-application cost, please do get in touch.

Kind regards,  
Adrian

**Adrian Simms MRTPI**

Senior Transport Planning Consultant - Planning, Transport & Design, Environment & Infrastructure Europe, Amec Foster Wheeler  
Gables House, 62 Kenilworth Road, Royal Leamington Spa, CV32 6JX, UK

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**From:** [James.Wraight@kent.gov.uk](mailto:James.Wraight@kent.gov.uk) [mailto:[James.Wraight@kent.gov.uk](mailto:James.Wraight@kent.gov.uk)]

**Sent:** 30 March 2017 09:43

**To:** Simms, Adrian <[Adrian.Simms@amecfw.com](mailto:Adrian.Simms@amecfw.com)>; [sally.benge@kent.gov.uk](mailto:sally.benge@kent.gov.uk)

**Cc:** [April.Newing@kent.gov.uk](mailto:April.Newing@kent.gov.uk); Gardner, Oliver W <[Oliver.Gardner@amecfw.com](mailto:Oliver.Gardner@amecfw.com)>; Ford, Luke <[Luke.Ford@amecfw.com](mailto:Luke.Ford@amecfw.com)>

**Subject:** RE: Thanet Offshore Wind Farm Extension - Traffic and Transport (Traffic & Accident Data)

Hi Adrian

Sorry, the only raw data I am aware of in those areas happens to be owned by third party developers, as such I am unable to pass on without their consent.

We can liaise with you regarding assessment scopes, however I am afraid that we charge for Pre application advice so to feedback substantively, I would need a commission for you / your client.  
<http://www.kent.gov.uk/waste-planning-and-land/planning-applications/planning-advice/highway-pre-application-advice>

Sandwich Road is traffic calmed, as such I would advise against using this as a construction traffic route where / when logistically avoidable, although I appreciate that if apparatus is installed on or along this route then naturally some activity will be inevitable.

Kind regards

James

**James Wraight** | Principal Transport & Development Planner | Highways & Transportation | Kent County Council | Ashford Highway Depot, Henwood Industrial Estate, Javelin Way, Ashford, Kent, TN24 8AD | [www.kent.gov.uk](http://www.kent.gov.uk) |

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**From:** Simms, Adrian

**Sent:** 29 March 2017 17:07

**To:** Wraight, James - GT HTW; Benge, Sally - GT HTW

**Cc:** Newing, April - GT EPE; Gardner, Oliver W; Ford, Luke

**Subject:** RE: Thanet Offshore Wind Farm Extension - Traffic and Transport (Traffic & Accident Data)

Hi James,

Thanks for the email address for PIA data. Our team will make contact.



We may be able to source traffic data from a neighbouring project we're involved in. Notwithstanding, please see the links below for which traffic flow data would be beneficial:

- A299;
- A256; and
- Sandwich Road.

I attach a cursory plan highlighting these links of interest.

It would be useful at this stage to agree the extent of the assessment area for the purposes of the Transport ES Chapter.

It is our understanding, that the following route(s) is likely to be used by all construction related traffic...

1. A299 – A256 (Hengist Way) or A256 (Richborough Way) – Sandwich Road; or
2. A256 – Sandwich Road.

... and therefore should form the extent of the survey/assessment area during the construction phase of the underground cable.

If you have any queries or require further information please do not hesitate to contact me.

Kind regards,

Adrian

**Adrian Simms MRTPI**

Senior Transport Planning Consultant - Planning, Transport & Design, Environment & Infrastructure  
Europe, Amec Foster Wheeler  
Gables House, 62 Kenilworth Road, Royal Leamington Spa, CV32 6JX, UK

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**From:** [REDACTED]  
**Sent:** 27 March 2017 14:01  
**To:** Simms, Adrian <[REDACTED]>

**Cc:** [REDACTED] Gardner, Oliver W [REDACTED]  
**Subject:** RE: Thanet Offshore Wind Farm Extension - Traffic and Transport (Traffic & Accident Data)

Hello Adrian

Crash data can be obtained by emailing the crash data team [crashdata@kent.gov.uk](mailto:crashdata@kent.gov.uk)

I believe that we no longer have fixed counter sites. Which links were you looking for ?

Kind Regards

James

**James Wraight** | Principal Transport & Development Planner | Highways & Transportation | Kent County Council | Ashford Highway Depot, Henwood Industrial Estate, Javelin Way, Ashford, Kent, TN24 8AD | [REDACTED] [www.kent.gov.uk](http://www.kent.gov.uk) |

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**From:** Simms, Adrian [REDACTED]  
**Sent:** 23 March 2017 14:28  
**To:** Bengé, Sally - GT HTW; Wraight, James - GT HTW; [REDACTED]  
**Cc:** Newing, April - GT EPE; Gardner, Oliver W  
**Subject:** Thanet Offshore Wind Farm Extension - Traffic and Transport (Traffic & Accident Data)

Good afternoon,

By way of introduction my name is Adrian Simms and I work for Amec Foster Wheeler who have been commissioned to assist with the DCO application for the Thanet Offshore Wind Farm Extension project. I am the point of contact for Traffic and Transport with specific regard to the onshore underground cable element of the scheme.

I am trying to establish the appropriate contacts for traffic flow and accident data on the highway network. I would be very grateful if contact details could be supplied.

Thanks in advance,

Regards,  
Adrian

**Adrian Simms MRTPI**

Senior Transport Planning Consultant - Planning, Transport & Design, Environment & Infrastructure Europe, Amec Foster Wheeler  
Gables House, 62 Kenilworth Road, Royal Leamington Spa, CV32 6JX, UK

[REDACTED]  
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**From:** Simms, Adrian [mailto:adrian.simms@woodplc.com]

**Sent:** 14 March 2018 16:21

**To:** Bown, Kevin [REDACTED]

**Cc:** Wood, Martin [REDACTED]; Ford, Luke [REDACTED]; Sean Leake

[REDACTED] growthandplanning

[REDACTED] Planning SE

[REDACTED] Abnormal Loads [REDACTED]

**Subject:** FW: Highways England response RE: Thanet Extension Offshore Wind Farm (TEOW) - Traffic and Transport

Hi Kevin,

Further to our correspondence last year, I am able to provide an update on the predicted traffic movements associated with the Thanet Extension project.

This information has also been shared with KCC Highways (Richard Smith) as we seek clarification for the need to undertake a Transport Assessment (TA) for this scheme.

If you have any queries please do not hesitate to get in touch asap and I can set up a skype call/meeting.

This email correspondence should be read separately to the recent exchange regarding the AIL Access Study for transformer delivery (06/03/18)

**Construction Phase:**

- The construction programme is expected to last approx. 30 months = 947 days
- 12-hour working day / 6 days per week will apply
- There will be a 'winter break' (approx. 16 weeks) when activities will cease (no vehicle movements occur)
- There are 154 days when no movements occur due to phasing

**Light Vehicles:**

- 48 two-way (24 in, 24 out) average daily staff light vehicle movements
- 106 two-way (53 in, 53 out) peak staff light vehicle movements (occurs on one day)
- Shift patterns for staff won't be known at this stage but given that the working day is 0700-1900, we can assume most staff will arrive/depart outside of the peak network hours. Delivery profiles for construction traffic are likely to be identified post consent.

**HGVs:**

- HGVs will access the site via the A256 (Richborough Energy Park RAB) and Sandwich Road depending on the activity.
- 702 two-way (351 in, 351 out) peak HGVs (movements occur on three consecutive days of the programme and will route via Sandwich Road to one of the access points.)

- Please see spreadsheet attached for further vehicle movement information\*. Identified are the programme peak HGV movements, number of days they occur on and the associated activity. From this information I have assigned a highway link that would be used to access/deliver/remove materials to the activity site. A percentage impact (based on 12-hour day) is also shown using future growthed baseline traffic flows for that highway link.

\*Please note the programme shown is indicative for the purposes of the EIA. It is by no means the final construction programme but allows us to assess the worst-case scenario.

ALLs

- Abnormal loads would be avoided where practicable
- We anticipate two ALL load delivered to the substation in the form of substation transformers
- An ALL Access Study has been undertaken and assesses routes from potential ports of entry to site and SRN (M2/A2) - (previously consulted on this matter 06/03/18)
- Potential ports of entry considered: Tilbury, Dover, Ramsgate

Offshore Wind Farm

- Offshore wind farm construction is not anticipated to generate any HGV trips to the Port of Ramsgate
- Light vehicle movements associated with the offshore wind farm construction are assumed to be low in volume and can be scoped out of further assessment (Wood to confirm).

Construction trips are based on a indicative 30 month programme. Whilst peaks occur across this programme, any impact is assumed to be temporary in a nature.

#### Operation and Maintenance Phase

Cable:

- One two-way staff trip per week will be made for the onshore cable works

Substation:

- Substation will be unmanned however, it will on average generate one two-way staff trip per week made by light vehicle

Offshore Wind Farm

- 24 two-way HGV movements per year
- 50 two-way staff light vehicles per day

#### Vehicle Routes

It is anticipated that the civil engineering and earthworks workforce requirements for the cable route and substation could be sourced locally. Use of local contractors will depend largely on availability and the commercial arrangements used by the final contractor and subcontractor.

As the origin of materials/equipment is unknown at this stage we have to assume that 100% of traffic will route north/south to the SRN (A2/M2) (this presents a worst-case scenario). The impact on the SRN is likely to be minimal given the distance between the SRN and site. It is likely that construction and operational traffic will have diluted before reaching the SRN

If you have any queries please do not hesitate to get in touch.

Kind regards,  
Adrian

**Adrian Simms MRTPI**  
Principal Transport Planner  
Wood Environment & Infrastructure Solutions UK







---

From: Simms, Adrian

Sent: 30 November 2017 15:48

To: 'Bown, Kevin'

bnormal Loads

Cc: Planning SE

growthandplanning

Ford, Luke

Subject: RE: Highways England response RE: Thanet Extension Offshore Wind Farm (TEOW) - Traffic and Transport

Hi Kevin,

I can confirm that it is anticipated that there could be in the region of 50 two-way light vehicles associated with the operation of the offshore wind farm.

I hope to be provided with more information on the travel profiles of staff/HGV movements after Christmas.

Will be in touch in the New Year.

Kind regards,

Adrian

**Adrian Simms MRTPI**

Principal Transport Planner

Environment & Infrastructure Solutions



---

From: Bown, Kevin

Sent: 30 October 2017 16:17

To: Abnormal Loads

Cc: Planning SE

growthandplanning

Subject: Highways England response RE: Thanet Extension Offshore Wind Farm (TEOW) - Traffic and Transport

Dear Adrian,

Thank you for the further update.

We note that the estimated daily flows for construction have now increased. Even with the increase in HGV trips, it remains the case that our concerns will mainly be related to the impact on staff travel on the SRN during the construction phase. This is based on the assumption of a flat profile for construction vehicles over a 12 hour period.

If construction staff are likely to travel to the site outside of the SRN network Peak Hours, evidence supporting this (when available) may allay our concerns regarding the impact on the SRN.

We previously indicated that we are in agreement that it is unlikely that the trips generated would have a severe impact on the SRN. However I note in your email that the information provided for the Offshore Wind Farm indicates in the region of ~~400~~ 50 two-way maintenance trips per day. Can you please confirm if this is a typo (and should read per year, in-line with information provided for OWF related HGV movements) or if the estimates have significantly increased? If this is the case then our previous opinion may no longer be applicable.

With regards the need for and timing of an AIL Study I suggest you contact the HE Abnormal Load Team (copied in) [abnormal.loads@highwaysengland.co.uk](mailto:abnormal.loads@highwaysengland.co.uk) to discuss your/our requirements with them.

Should you have any further queries please contact us. We look forward to continuing to work with you as your proposals become more detailed.

Regards

**Kevin Bown, Spatial (Town) Planning Manager BSc(Hons) MPhil CMS MRTPI**

Highways England | Bridge House | 1 Walnut Tree Close | Guildford | GU1 4LZ

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**From:** Simms, Adrian

**Sent:** 19 October 2017 13:37

**To:** Bown, Kevin

**Cc:** Planning SE; Ford, Luke; Gardner, Oliver W; Wood, Martin

**Subject:** RE: Thanet Extension Offshore Wind Farm (TEOW) - Traffic and Transport

Hi Kevin,

Thank you for your response.

Since my last email (see below), in agreement with the client, the anticipated traffic movements have been updated, and as a result, has required revisions to be made to the assessment to establish the new % increases.

I provide this revised information here:

**Construction Phase**

#### Anticipated peak two-way HGV and LV trips - construction

Development Phase	Peak two-way HGV Trips per Day	Peak two-way LV Trips per Day
Onshore Cable	100	100
Onshore Substation	150	150
<b>Total</b>	<b>250</b>	<b>250</b>

Please note the above movements are the worst-case peak movements. It is unlikely that this would ever been seen on the network however, for the purposes of the PEIR submission we have to consider worst-case scenarios.

Greater detail on the anticipated monthly/daily movements will be known as the project progresses and a programme is identified. This will be provided to you once known.

#### Summary of predicted increase in average weekly two-way traffic

Road Link	Future baseline all vehicles	Future baseline HGVs (includes MGVs)	Future baseline LV flows	Predicted HGV flows	Predicted LV flows	Predicted increase all vehicles (%)	Predicted HGV increase (%)	Predicted LVs increase (%)
A299 Hengist Way (N)	18,961	1,424	17,537	250	250	2.6	17.6	1.4
A299 Hengist Way (E)	28,805	1,363	27,442	-	250	0.9	-	0.9
A256 Richborough Way	23,672	1,298	22,374	250	250	2.1	19.3	1.1
A256 (S)	26,826	1,356	25,470	250	250	1.9	18.4	1.0
A299 Canterbury Road (E)	20,221	774	19,447	-	250	1.2	-	1.3

#### Construction Vehicle Routing

It is anticipated that all construction HGVs will access the site via the A299 Hengist Way (N) and A256 from the south. All HGVs will enter the development Site via the A256/ Richborough Energy Park Roundabout. No HGVs will route on Sandwich Road due to the fact that it is a traffic calmed road which routes through the settlement of Cliffsend. This would be enforced through the TMP. HGVs are highly unlikely to route on the A299 Hengist Way (E) or the A299 Canterbury Way (E) due to the location of the primary site access and the assumed origins of material and equipment.

#### Operation Phase

**Cable Works** - It is anticipated that less than one two-way staff trip per week will be made for the onshore cable works.  
**Onshore substation** - The substation will be unmanned however, it will on average generate one two-way staff trip per week made by LV.

**Offshore Wind Farm (OWF)** - It is anticipated that there could be in the region of ~~100~~ 50 two-way maintenance trips per day associated with the OWF.



It is anticipated that there could be in the region of 24 two-way HGV movements per year associated with the O&M of the OWF.

**Abnormal loads**

As before, it is understood that abnormal loads will be delivered to the Site (likely Transformers and Cable Drums). The details of these are yet to be established.

Are you able to provide an indication if an AIL study is likely to be required and the likely study area you would expect to see SPAs undertaken?

In addition to the above, I have inserted a short response to some of the points you raise in your email.


If you have any queries, please do not hesitate to get in touch.

Kind regards,  
Adrian




(as of 09 October we are now trading after Wood after a recent merger of the Wood Group and Amec Foster Wheeler)

**Adrian Simms MRPTI**

Principal Transport Planning Consultant

  
www.woodplc.com



**From:** Bown, Kevin   
**Sent:** 21 September 2017 16:08  
**To:** Simms, Adrian   
**Cc:** Planning SE ; Ford, Luke <[Luke.Ford@amecfw.com](mailto:Luke.Ford@amecfw.com)>; Gardner, Oliver W <[Oliver.Gardner@amecfw.com](mailto:Oliver.Gardner@amecfw.com)>  
**Subject:** RE: Thanet Extension Offshore Wind Farm (TEOW) - Traffic and Transport

Dear Adrian,

Thank you for the update.

Having reviewed the initial information, it's likely that our concerns will mainly be related to the impact of staff travel on the SRN during the construction phase. We will therefore be particularly interested in working hours (shift patterns / office hours), likely "home" locations (e.g. if staff are likely to be split fairly evenly across the A299 and A256 junctions or the majority use one or the other, and / or if a significant proportion will be local/ locally based for the duration of construction and therefore not use the SRN). **Unfortunately, working patterns are not known at this stage. It is likely that construction staff will travel to the site between 06:00-07:00 (for 07:00 start) and again 19:00-20:00 (19:00 finish). Locations of staff are unknown. We could assume a proportion of staff would temporarily reside in Ramsgate and then the remainder split N/S on the A256 and A299.**

During the operational phase, we are in agreement that it is unlikely that the trips generated would have a severe impact on the SRN. This will however need to be confirmed as part of any application.

Noted

Should you have any further queries please contact us. We look forward to continuing to work with you as your proposals become more detailed.

Regards

**Kevin Bown, Spatial (Town) Planning Manager BSc(Hons) MPhil CMS MRTPI**

Highways England | Bridge House | 1 Walnut Tree Close | Guildford | GU1 4LZ

[Redacted]

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**From:** Simms, Adrian [Redacted]

**Sent:** 05 September 2017 12:21

**To:** Bown, Kevin

**Cc:** Planning SE; Ford, Luke; Gardner, Oliver W

**Subject:** RE: Thanet Extension Offshore Wind Farm (TEOW) - Traffic and Transport

Hi Kevin,

Hope this email finds you well.

Further to our previous correspondence, we are able to provide you with detail on HGV & LV movements associated with the construction & operation phases of the landfall cable, substation and offshore wind farm.

Construction

Due to the uncertainty in vehicle routing to/ from the Site, 100% of anticipated HGV flows relating to the onshore landfall cable and substation have been applied to the A256 north and southbound, representing a worst case assessment.

Personnel trips relating to the onshore landfall cable have been applied to Sandwich Road, with those attributed to the onshore substation routing via the A256. All HGV traffic for the landfall cable will enter the Site via the roundabout with the A256/ Sandwich Road.

No HGV traffic will route on Sandwich Road.

Development Phase	Peak two-way HGV Trips per Day (0700-1900)	Peak two-way light vehicle Trips per Day (0700-1900)
Onshore Landfall Cable	6	100
Onshore Substation	100	100



Development Phase	Peak two-way HGV Trips per Day (0700- 1900)	Peak two-way light vehicle Trips per Day (0700-1900)
<b>Total</b>	<b>106</b>	<b>200</b>

These daily trips have been added to the future baseline year of 2021 to assess the impact, detailed in the table below.

Summary of predicted increases in average weekday two-way traffic.

Road Link	Baseline flows (all vehicles)	Baseline HGV flows	Baseline light vehicle flows	Predicted HGV flows	Predicted light vehicle flows	Predicted increase all vehicles (%)	Predicted HGV increase (%)	Predicted light vehicles increase (%)
Sandwich Road	3,027	3	3,024	0	100	3.3	0	3.3
A299 Hengist Way (N)	12,606	206	12,400	106	100	1.6	51.4	0.8
A299 Hengist Way (E)	27,581	350	27,231	106	100	0.7	30.3	0.4
A256 Richborough Way	22,660	365	22,295	106	100	0.9	29.0	0.4
A256 (S)	25,632	371	25,261	106	100	0.8	28.6	0.4
A299 Canterbury Road (E)	19,321	130	19,191	106	100	1.1	81.5	0.5

As the table shows, we have assumed 100% of HGV traffic will be distributed on the A299, and A256. We have no confirmation on final routing, so this approach accounts for a worst-case. Once we know final routing the impact is expected to decrease.

#### Operation

Once Thanet Extension, associated landfall cable and substation elements of the development are complete, very few operational trips are expected to be generated. Most facilities are expected to be unmanned however, may require periodic maintenance related visits.

The substation will be unmanned however, it will on average generate one staff trip per week made by light vehicle. Fewer trips will be made for the onshore landfall cable.

It is anticipated that there could be in the region of 80 two-way maintenance trips per year associated with the maintenance of the offshore wind farm.

#### Impact on the SRN

It is assumed that construction traffic will be diluted before routing on the SRN (A2, M2, M20). Currently, sources/locations of materials and equipment for the construction phase is unknown hence why we applied 100% of

traffic north and south on the A256 and A299. Traffic is unlikely to travel through Canterbury to reach the A2 but more likely to route via the A299 to reach the M2 and A256 to reach the A2 via Dover.

Abnormal loads – It is understood that abnormal loads will be delivered to the Site during the construction phase. These are likely to pertain the Substation Transformer and landfall cable drums. It is currently assumed that the substation transformer will be delivered to the nearest port (Ramsgate) and route on the LRN only to the Site. The source of the cable drums is unknown at this stage however assumed to route on the SRN/LRN. Once further detail on dimensions and weight is known I will contact you again.

If you have any questions regarding the above, please do not hesitate to contact me.

May thanks,  
Adrian

**Adrian Simms MRTPI**

Senior Transport Planning Consultant - Planning, Transport & Design, Environment & Infrastructure Europe, Amec Foster Wheeler

Gables House, 62 Kenilworth Road, Royal Leamington Spa, CV32 6JX, UK

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**From:** Bown, Kevin [REDACTED]  
**Sent:** 10 April 2017 16:45  
**To:** Simms, Adrian [REDACTED]  
**Cc:** Planning SE [REDACTED]  
**Subject:** RE: Thanet Extension Offshore Wind Farm (TEOW) - Traffic and Transport

Dear Adrian

Thanks for the update. I look forward to hearing from you again in due course.

Regards

**Kevin Bown, Spatial (Town) Planning Manager BSc(Hons) MPhil CMS MRTPI**

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**From:** Simms, Adrian [REDACTED]  
**Sent:** 10 April 2017 11:53



**To:** Bown, Kevin  
**Cc:** Ford, Luke  
**Subject:** Thanet Extension Offshore Wind Farm (TEOW) - Traffic and Transport

Dear Kevin,

By way of introduction my name is Adrian Simms and I work for Amec Foster Wheeler who have been commissioned to assist with the DCO application for the Thanet Extension Offshore Wind Farm project. As you are aware, Thanet Extension is a Nationally Significant Infrastructure Project (NSIP) and as such an EIA is required as part of a Development Consent Order (DCO) application under the Planning Act 2008.

Electricity generated would be transported to the shore by offshore export cables installed within the proposed Thanet Extension Offshore Export Cable Corridor. I am the point of contact for all onshore Traffic and Transport enquiries.

I note in your Scoping response dated 09 January, that you wish to fully understand the construction phase implications on your highway network, specifically at the M2 J7 / A299 and A256 / A2 junctions. We also acknowledge the multi-agency response 'Operation Stack' at Manston Airfield.

As part of the ES Chapter we will identify the construction movements associated with the onshore cable corridor and establish routing that these vehicles will take. Unfortunately this information is not available at present however, will be reported within the ES chapter once known.

We are currently in dialogue with Kent County Council (KCC) highways to determine if a Transport Assessment (TA) is also required to be submitted.

I will be in touch again as the project commences.

If you have any questions, please do not hesitate to get in touch.

Best regards,  
Adrian

**Adrian Simms MRTPI**  
Senior Transport Planning Consultant - Planning, Transport & Design, Environment & Infrastructure Europe, Amec Foster Wheeler  
Gables House, 62 Kenilworth Road, Royal Leamington Spa, CV32 6JX, UK

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**From:** Simms, Adrian [REDACTED]  
**Sent:** 26 April 2018 16:14  
**To:** [REDACTED]  
**Cc:** [REDACTED] Sean Leake [REDACTED]  
**Subject:** RE: Thanet Offshore Wind Farm Extension - High-level capacity assessment

Hi Richard,

Response below in red.

Kind regards,  
Adrian

**Adrian Simms MRTPI**  
Principal Transport Planner  
Wood Environment & Infrastructure Solutions UK



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---

**From:** [REDACTED]  
**Sent:** 23 April 2018 09:38  
**To:** [REDACTED]  
**Cc:** [REDACTED]  
**Subject:** RE: Thanet Offshore Wind Farm Extension - High-level capacity assessment

Hi Adrian,

Can you please clarify a few things for me, as follows:

1. Is there likely to be any overlap of activities and associated HGV movements that will mean more HGV trips than the worst case shown, or having the worst case shown occur on many more days than just the three anticipated? I think the spreadsheet you sent is intended to try and answer that but I would like clarification please.



(Adrian Simms) I can confirm that no additional HGVs will occur on the worst-case day when 702 are expected. (351 arrivals, 351 departures). The programme shows there are only three days in the programme when 702 movements occur. On these three days there will however be 34 LGV movements (17 arrivals, 17 departures) and 94 light vehicles (staff) (47 arrivals, 47 departures).

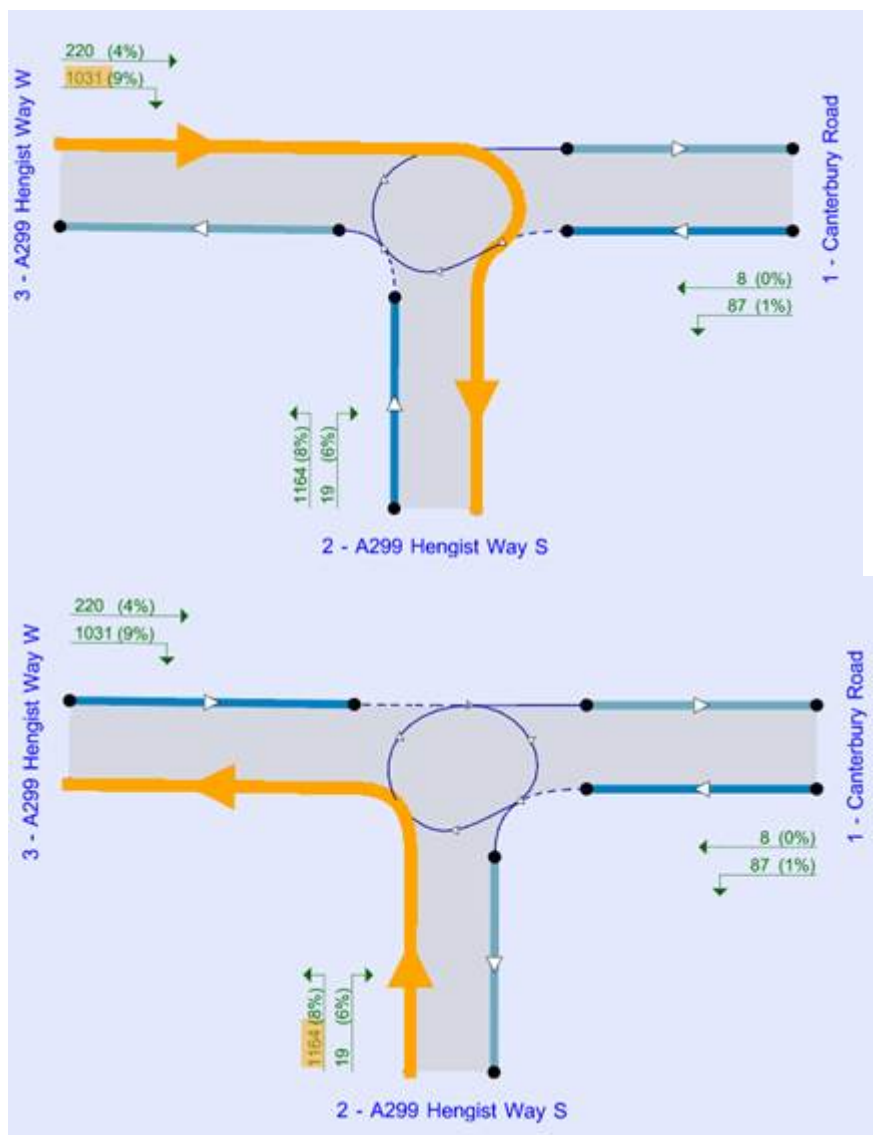
- You appear to be proposing two new temporary access points in Sandwich Road, one in the vicinity of the Ebbsfleet Lane signal junction. Is this likely to be another arm to the signal junction or sufficiently separated to act as a simple priority junction?

(Adrian Simms) The temporary access is proposed approx.. 60m south of the Ebbsfleet Lane signal junction. This should be sufficiently separated and act as a simple priority junction that would be designed to standards in agreement with KCC. This access would remain accessible for the project during operation and maintenance (O&M). Vehicles using this during the O&M phase would very limited and low in number.

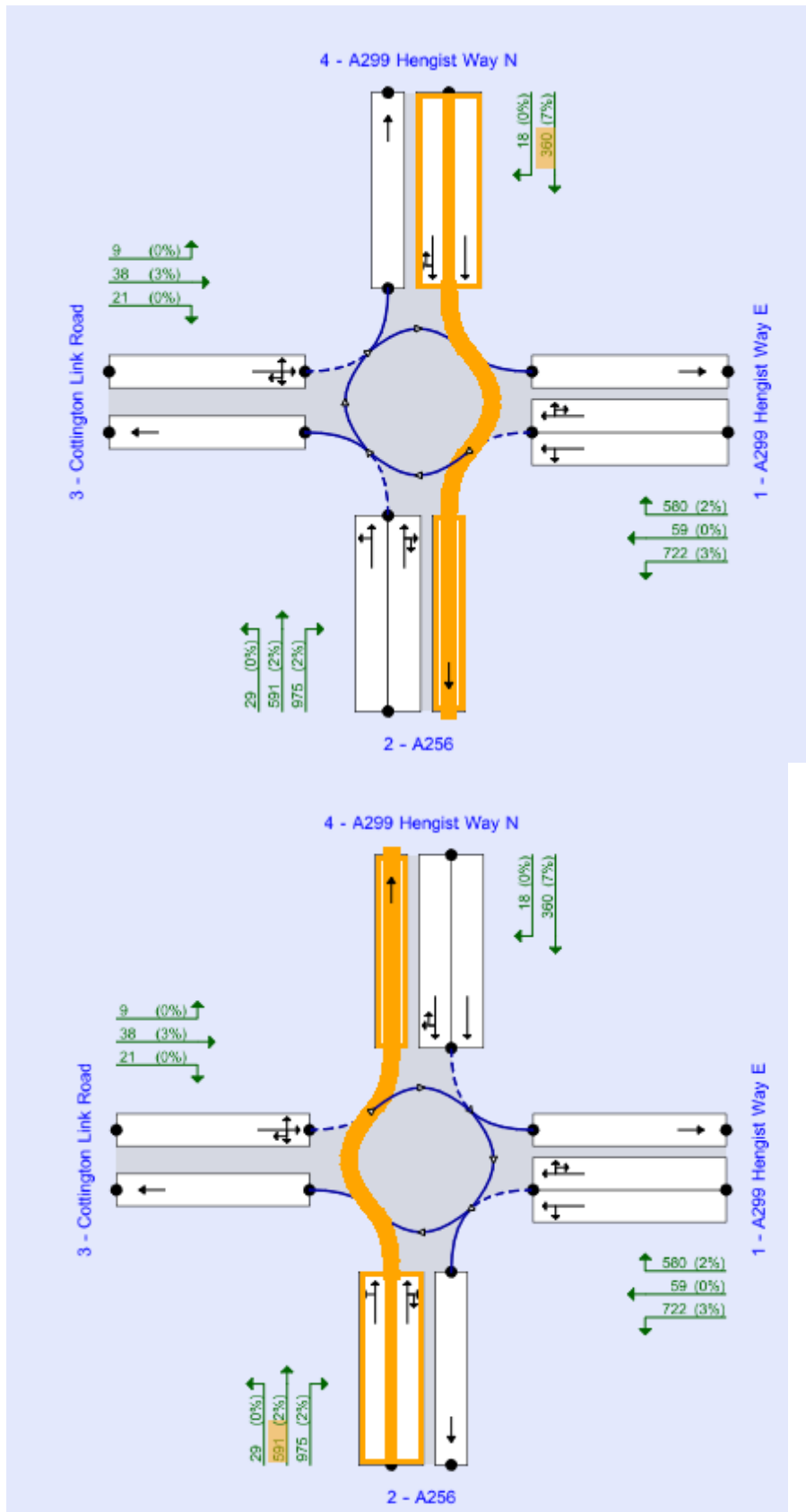
- Can you please confirm which arms the trips have been applied to in your model runs?

(Adrian Simms) I can confirm that the construction trips have been added to the following arms at the roundabouts below. Movements are identified in orange.

**Cliffsend RAB:**



**Sevenscore RAB:**

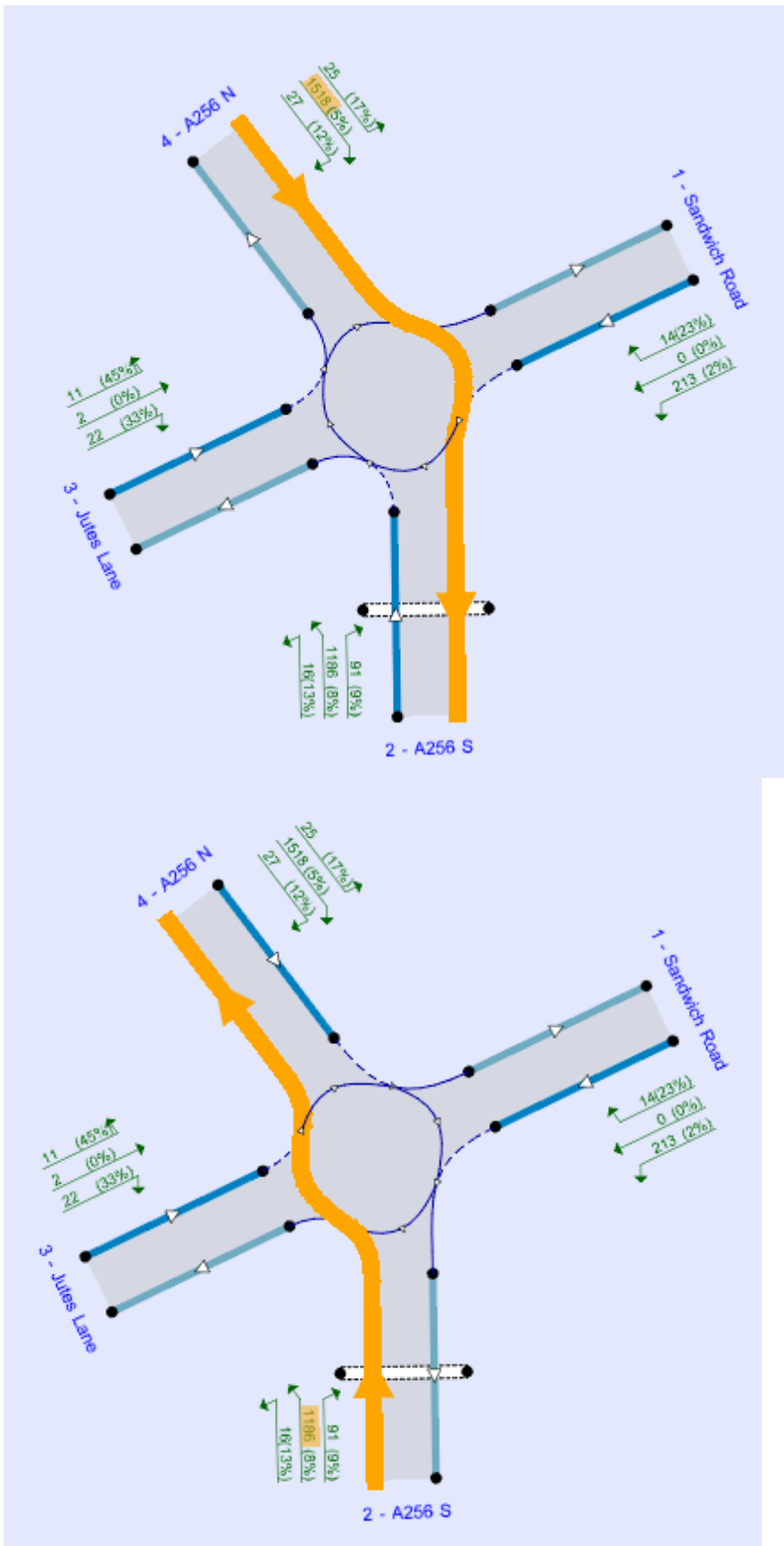


**Ebbsfleet RAB:**

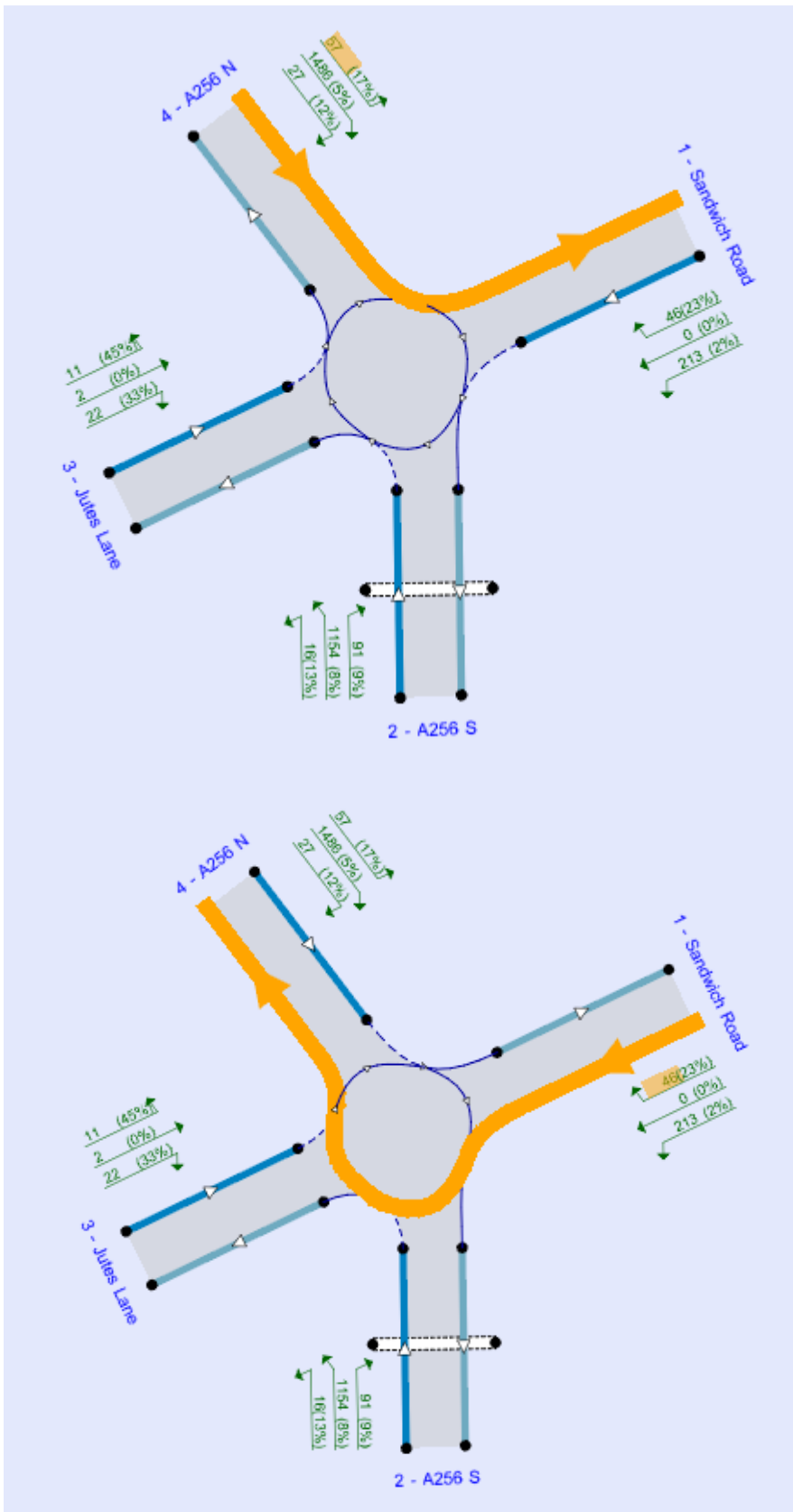
Model now considers 3 movement scenarios:

- 1) All traffic arrives/departs from North – then continues to Richborough energy Park RAB (Substation access).
- 2) All traffic arrives/departs from North and enters Sandwich Road (trips associated with Country Park/Lanfill Crossing/Saltmark Transition pits activities)
- 3) All traffic arrives/departs from the South and enters Sandwich Road (trips associated with Country Park/Lanfill Crossing/Saltmark Transition pits activities)

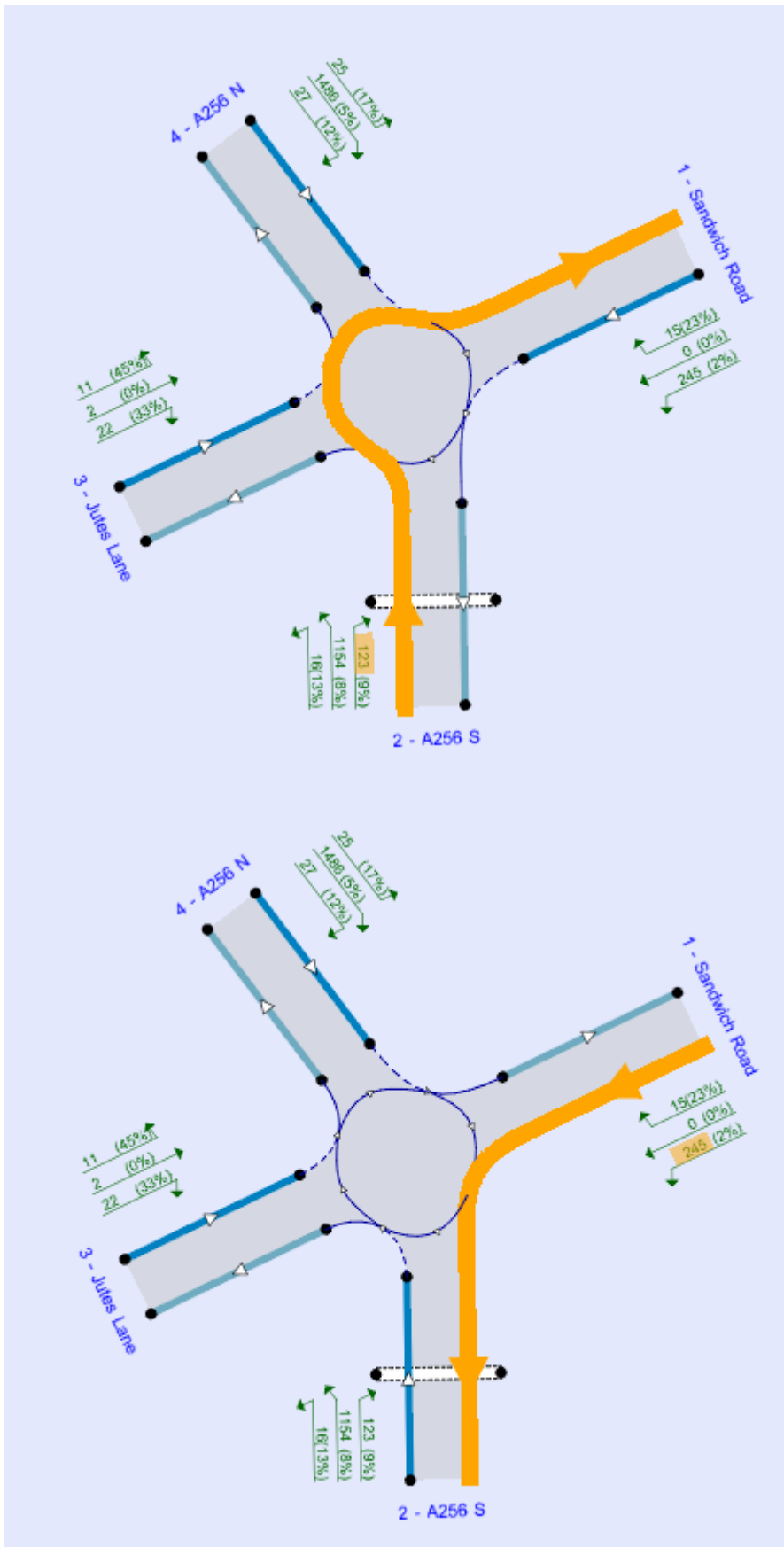
1)



2)



3)



Ebbsfleet RAB – Results with new scenarios

	AM					PM				
	Queue (Veh)	Delay (min)	RFC	LOS	Network Residual Capacity	Queue (Veh)	Delay (min)	RFC	LOS	Network Residual Capacity
<b>2017 Baseline Traffic</b>										
1 - Sandwich Road	2.5	0.67	0.73	E	-2 % [1 - Sandwich Road]	0.7	0.22	0.43	B	10 % [3 - Jutes Lane]
2 - A256 S	1.5	0.07	0.61	A		3.3	0.11	0.77	A	
3 - Jutes Lane	0.1	0.19	0.11	B		0.2	0.30	0.18	C	
4 - A256 N	7.3	0.28	0.89	C		1.8	0.10	0.64	A	
<b>2020 Baseline Traffic</b>										
1 - Sandwich Road	3.7	0.96	0.82	F	-6 % [1 - Sandwich Road]	0.8	0.24	0.46	B	5 % [3 - Jutes Lane]
2 - A256 S	1.7	0.07	0.63	A		3.8	0.12	0.80	A	
3 - Jutes Lane	0.1	0.21	0.12	B		0.3	0.38	0.22	C	
4 - A256 N	11.1	0.42	0.93	D		2.0	0.10	0.67	A	
<b>2020 Base + Dev (substation access)</b>										
1 - Sandwich Road	4.2	1.10	0.84	F	-8 % [1 - Sandwich Road]	0.9	0.25	0.47	C	3 % [3 - Jutes Lane]
2 - A256 S	1.5	0.06	0.60	A		3.6	0.11	0.78	A	
3 - Jutes Lane	0.1	0.22	0.12	B		0.3	0.43	0.25	D	
4 - A256 N	14.0	0.52	0.95	D		2.2	0.11	0.69	A	
<b>2020 Base + Dev (Sandwich Road access arrive/depart from N)</b>										
1 - Sandwich Road	8.2	1.81	0.95	F	-12 % [1 - Sandwich Road]	1.2	0.28	0.54	C	3 % [3 - Jutes Lane]
2 - A256 S	1.5	0.06	0.59	A		3.5	0.11	0.78	A	
3 - Jutes Lane	0.1	0.22	0.12	B		0.3	0.43	0.25	D	
4 - A256 N	14.4	0.53	0.95	D		2.3	0.11	0.70	A	
<b>2020 Base + Dev (Sandwich Road access arrive/depart from S)</b>										
1 - Sandwich Road	7.4	1.64	0.93	F	-11 % [1 - Sandwich Road]	1.2	0.29	0.54	C	3 % [3 - Jutes Lane]
2 - A256 S	1.5	0.06	0.60	A		3.6	0.11	0.79	A	
3 - Jutes Lane	0.1	0.22	0.12	B		0.3	0.44	0.25	D	
4 - A256 N	12.5	0.47	0.94	D		2.1	0.11	0.68	A	

(Adrian Simms) It is still important to acknowledge that the above model runs and those previously provided represent a worst-case scenario by showing 100% of construction movements arriving/departing from the origin/destination. In reality, traffic movements would disperse on numerous routes to their given origin/destination.

(Adrian Simms) The results above for Ebbsfleet still show moderate increases in delay and RFC as a result of the worst-case peak construction movement that occurs on three days of the programme. Impacts will be reduced for the remainder of the programme based on the movements identified in the attached pdf.

(Adrian Simms) Based on the temporary nature of impacts and reduced number of construction trips for the remainder of the construction phase, we feel a Transport Assessment is not appropriate for this scheme. Further studies, as necessary, would be undertaken at pre-construction stage.

Regards,

Richard

Richard Smith  
Senior Development Planner  
Kent County Council  
Highways and Transportation  
Ashford Highway Depot  
4 Javelin Way



Ashford TN24 8AD

---

**From:** Simms, Adrian [REDACTED]  
**Sent:** 18 April 2018 17:21  
**To:** Smith, Richard - GT HTW [REDACTED]  
**Cc:** Wood, Martin [REDACTED] Sean Leake [REDACTED]  
[REDACTED] Wraight, James - GT HTW [REDACTED]  
Wraight, Emma - GT HTW [REDACTED] Wadhams, Darren - GT HTW [REDACTED]  
**Subject:** FW: Thanet Offshore Wind Farm Extension - High-level capacity assessment

Dear Richard,

As discussed on the call this morning, it was agreed that Wood would undertake a high-level capacity assessment of key junctions in vicinity of the proposed development concerning Thanet Extension.

Junction modelling has been undertaken to assess the likely future impact of construction traffic at the following junctions on the construction route:

- Canterbury Road West/A299 [Cliffsend roundabout];
- A299 Hengist Way/A256/Cottingham Link Road [Sevenscore roundabout]; and
- Sandwich Road/A256/Jutes Lane [Ebbsfleet roundabout]

The worst-case peak traffic numbers have been used for this assessment (702 HGV two-way movements (351 arrivals, 351 departures), 200 LV two-way movements (100 arrivals, 100 departures)). These were previously provided in email on 06/04 (see attached).

As these traffic numbers above were for a 12-hour working day (07:00-19:00), the DfT Table *TRA0307 (Motor vehicle traffic distribution by time of day of the week on all roads)* has been used to identify the proportion likely to impact the AM and PM peak hours.

The resultant worst-case impact is:

**AM – 50 HGV two-way (25 arrivals, 25 departures) and 14 LV two-way (7 arrivals, 7 departures)**

**PM – 54 HGV two-way (27 arrivals, 27 departures) and 16 LV two-way (8 arrivals, 8 departures)**

High-level model run results for the key junctions tested are as follows:

**Cliffsend Roundabout**

	AM					PM				
	Queue (Veh)	Delay (min)	RFC	LOS	Network Residual Capacity	Queue (Veh)	Delay (min)	RFC	LOS	Network Residual Capacity
<b>2017 Baseline Traffic</b>										
1 - Canterbury Road	0.4	0.24	0.29	B	38 % [1 - Canterbury Road]	0.3	0.24	0.21	B	44 % [3 - A299 Hengist Way W]
2 - A299 Hengist Way S	1.8	0.09	0.64	A		1.7	0.08	0.63	A	
3 - A299 Hengist Way W	1.4	0.06	0.58	A		2.0	0.08	0.67	A	
<b>2020 Baseline Traffic</b>										
1 - Canterbury Road	0.4	0.26	0.31	C	33 % [1 - Canterbury Road]	0.3	0.25	0.23	C	38 % [3 - A299 Hengist Way W]
2 - A299 Hengist Way S	2.0	0.10	0.67	A		1.9	0.09	0.66	A	
3 - A299 Hengist Way W	1.5	0.07	0.61	A		2.3	0.09	0.70	A	
<b>2020 Base + Dev</b>										
1 - Canterbury Road	0.5	0.27	0.32	C	30 % [1 - Canterbury Road]	0.3	0.26	0.23	C	35 % [3 - A299 Hengist Way W]
2 - A299 Hengist Way S	2.2	0.10	0.69	A		2.1	0.09	0.68	A	
3 - A299 Hengist Way W	1.6	0.07	0.62	A		2.5	0.09	0.71	A	

- There are no identified capacity issues at this junction. The maximum RFC value for the AM and PM peak hours with development traffic is 0.69 and 0.71 respectively.
- The junction operates within capacity on all arms within the future baseline + development scenario.

### Sevenscore Roundabout

	AM					PM				
	Queue (Veh)	Delay (min)	RFC	LOS	Network Residual Capacity	Queue (Veh)	Delay (min)	RFC	LOS	Network Residual Capacity
<b>Lane simulation [Lane Simulation] - 2017 Base Traffic Flow</b>										
1 - A299 Hengist Way E	9.5	0.30		C	% [ ]	2.8	0.11		A	% [ ]
2 - A256	9.2	0.45		D		25.3	0.84		F	
3 - Cottington Link Road	6.7	3.34		F		4.2	3.19		F	
4 - A299 Hengist Way N	1.8	0.18		B		1.0	0.14		A	
<b>Lane simulation [Lane Simulation] - 2020 Base Traffic Flow</b>										
1 - A299 Hengist Way E	12.1	0.39		C	% [ ]	2.9	0.12		A	% [ ]
2 - A256	16.0	0.68		E		40.8	1.25		F	
3 - Cottington Link Road	16.0	7.42		F		9.7	6.85		F	
4 - A299 Hengist Way N	2.2	0.19		B		1.0	0.15		A	
<b>Lane simulation [Lane Simulation] - 2020 Base + Dev</b>										
1 - A299 Hengist Way E	16.4	0.46		D	% [ ]	3.2	0.12		A	% [ ]
2 - A256	18.2	0.77		E		46.6	1.41		F	
3 - Cottington Link Road	19.3	9.61		F		12.9	9.32		F	
4 - A299 Hengist Way N	2.2	0.20		B		1.1	0.15		A	

- The model for this junction has been carried out using lane simulation mode due to the already constrained capacity at this location.
- Large queues of 25 PCUs are shown on the A256 arm during the 2017 PM Baseline, increasing to 46 PCUs for the 2020 Future Baseline scenario.
- Development traffic increases queues by an average of 2-3 PCUs on each arm during the AM and PM peak scenarios.
- This is not considered to be a significant impact.

### Ebbsfleet Roundabout

	AM					PM				
	Queue (Veh)	Delay (min)	RFC	LOS	Network Residual Capacity	Queue (Veh)	Delay (min)	RFC	LOS	Network Residual Capacity
<b>2017 Baseline Traffic</b>										
1 - Sandwich Road	2.5	0.67	0.73	E	-2 % [1 - Sandwich Road]	0.7	0.22	0.43	B	10 % [3 - Jutes Lane]
2 - A256 S	1.5	0.07	0.61	A		3.3	0.11	0.77	A	
3 - Jutes Lane	0.1	0.19	0.11	B		0.2	0.30	0.18	C	
4 - A256 N	7.3	0.28	0.89	C		1.8	0.10	0.64	A	
<b>2020 Baseline Traffic</b>										
1 - Sandwich Road	3.7	0.96	0.82	F	-6 % [1 - Sandwich Road]	0.8	0.24	0.46	B	5 % [3 - Jutes Lane]
2 - A256 S	1.7	0.07	0.63	A		3.8	0.12	0.80	A	
3 - Jutes Lane	0.1	0.21	0.12	B		0.3	0.38	0.22	C	
4 - A256 N	11.1	0.42	0.93	D		2.0	0.10	0.67	A	
<b>2020 Base + Dev</b>										
1 - Sandwich Road	4.2	1.10	0.84	F	-8 % [1 - Sandwich Road]	0.9	0.25	0.47	C	3 % [3 - Jutes Lane]
2 - A256 S	1.5	0.06	0.60	A		3.6	0.11	0.78	A	
3 - Jutes Lane	0.1	0.21	0.12	B		0.3	0.43	0.25	D	
4 - A256 N	14.0	0.52	0.95	D		2.3	0.11	0.70	A	

- This junction experiences capacity issues during the 2017 AM Baseline scenario, with a max RFC value of 0.89.
- This then increases to 0.93 for the 2020 AM Future Baseline scenario.
- Development traffic increases this further to 0.95, however the increase of 0.02 to RFC and an additional 3 PCU queue is not considered to be a significant impact on the junction.

As can be seen from the model outputs, traffic generated by the construction phase of the development (includes HGVs & LVs) results in minimal queues and delays. It is evident that the addition of construction traffic does not impact on the operational performance of the junctions assessed.

This approach is considered to be very robust given that the junctions have been modelled on the worst-case peak movements which only occur over 3 days in the entire construction programme. Information previously provided shows traffic movements are considerably less than the peak movements assessed here over the remainder of the programme.

If you have any questions, please do not hesitate to contact me.

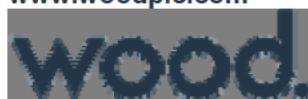
I look forward to your response.

All the best,  
Adrian

**Adrian Simms MRTPI**  
Principal Transport Planner  
Wood Environment & Infrastructure Solutions UK



[www.woodplc.com](http://www.woodplc.com)



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**From:** Simms, Adrian [redacted]  
**Sent:** 04 May 2018 14:38  
**To:** Bowie, David [redacted]  
**Cc:** Wood, Martin [redacted]; Sean Leake [redacted]; Benchabane Dalila (WO-ECC) [redacted]; Ford, Luke [redacted]; Planning SE [redacted]; Fisher, Rachael [redacted]; Bradley, Alistair J [redacted]; Ford, Luke [redacted]

**Subject:** RE: FW: Thanet Offshore Wind Farm Extension - High-level capacity assessment

Hi David,

Many thanks for your response.

I have provided a comment to address your queries below in red.

If you have any outstanding queries we would be more than willing to meet with you to discuss.

Kind regards,  
Adrian

**Adrian Simms MRTPI**  
Principal Transport Planner  
Wood Environment & Infrastructure Solutions UK



---

**From:** Bowie, David [redacted]  
**Sent:** 26 April 2018 11:29  
**To:** 'Simms, Adrian' [redacted]  
**Cc:** Wood, Martin [redacted]; Sean Leake [redacted]; Benchabane Dalila (WO-ECC) [redacted]; Ford, Luke [redacted]; Planning SE [redacted]; Fisher, Rachael [redacted]

**Subject:** RE: FW: Thanet Offshore Wind Farm Extension - High-level capacity assessment

Dear Adrian,

Thank you for your email dated 06 April providing addition trip generation information for the Thanet Extension Offshore Wind Farm (TEOW) proposals and the information from Kent in your email of 19<sup>th</sup> April.

Highways England has been appointed by the Secretary of State for Transport as strategic highway company under the provisions of the Infrastructure Act 2015 and is the highway authority, traffic authority and street authority for the strategic road network (SRN). The SRN is a critical national asset and as such Highways England works to ensure that it operates and is managed in the public interest, both in respect of current activities and needs as well as in providing effective stewardship of its long-term operation and integrity. We would be concerned about any proposals that could have an adverse impact on the safety, reliability or operation of the SRN, in this case particularly with regards the M2 and the A2 from the M2 Junction 7 to Dover.

We note that the information contained in your email will supersede any provided previously, therefore we have reviewed the figures anew.

Having reviewed the additional information, we have the following comments:

#### Operation and Maintenance Phase

Cable and substation operation / maintenance will generate limited trips and therefore are not likely to have a material impact on the SRN.

The Offshore Wind Farm (OWF) will generate both HGV and LGV trips. 48 two-way HGV movements per year, equating to less than one movement per fortnight (assuming a flat profile), would be unlikely to have a material impact on the SRN.

50 two-way LGV movements to the Ramsgate Vattenfall office (relating to the OWF) are unlikely to have a material impact. This is based on an assumption that a maximum of 24 movements (either "arrival" or "departure") would be generated in any one hour. *[Adrian Simms] This would represent absolute worst-case.* Considering the location of the office, almost 30 miles north of the SRN (A2 at Whitfield) it is unlikely that a significant volume of trips would use the SRN, however we would need confirmation of the likely origin / destinations and temporal profile to confirm this. *[Adrian Simms] At this stage of the project, the origins of LGVs to the Vattenfall office are unknown. However, it's extremely unlikely that the SRN will be impacted upon given that most LGVs would route on the LRN and movements diluted before reaching/routing the SRN.*

#### Construction Phase

We have interrogated the provided figures, and have needed to make some assumptions to review the likely impact of the construction on the SRN. We have outlined our assumptions and conclusions below.

##### *Light vehicles*

We assume that the figures provided are for "peak" construction day (not peak hour) *[Adrian Simms] - This is correct, traffic figures are provided for 12hour working day, not peak hour.*, and that a total of



200 vehicles will be generated on this “peak” day (not 122+88+200). *[Adrian Simms] Correct, 200 vehicles are generated on the worst-case peak day (12 hour) construction programme. This includes for 112 two-way staff light vehicles and 88 two-way LGVs.*

Shift patterns will likely occur outside of peak hours, however it is not currently known what the temporal profile of LGV movements (88 two-way trips daily) will be. Dependent on temporal profile, should all trips occur in peak hours and use the SRN, this volume of trips could be of concern. *[Adrian Simms] staff light vehicles are likely to occur outside of peak periods, pre 0700 and post 1800.*

#### HGVs

HGV volumes will vary over time. If averaged across the total days, it would equate to 125 trips per day however it is noted that there are anticipated peaks and troughs. *[Adrian Simms] the attached programme identifies the peak and troughs.*

The maximum number of trips is around 700 two-way trips per day, which only occurs for 3-4 days in the programme. There are also several other similar peaks within the programme, and there are some longer periods where significant volumes of HGV will be generated (e.g. 180 days of 176 two-way trips). *[Adrian Simms] A flat delivery profile would result in approx. 14 two-way trips per hour (7 arrivals, 7 departures) when considering the 180 days of 176 two-way movements. It is unlikely that the SRN will be impacted upon given the distance from the site and predicted 14 two-way trips/per hour.*

HGV trips will route via the A256 and Sandwich Road, which could link to the A2 (at Whitfield and / or Lydden Hill) and M2 / A2 (Brenley Corner via the A229).

Based on the figures provided, we would be concerned about the impact of the construction period on the SRN. We will therefore need to have an understand the routing, temporal distribution and whether some trips will dissipate across the Local Road Network prior to providing more detailed comments and confirming our requirements for assessment. *[Adrian Simms] At this stage we have assumed a flat delivery profile; that deliveries will occur every hour over the 12-hour day. Peak movements would be due to deliveries of materials / concrete etc and therefore they would by necessity be staggered throughout the day.*

#### AILs

Two AIL trips are expected.

We have previously recommended contact with the HE Abnormal Load Team [abnormal.loads@highwaysengland.co.uk](mailto:abnormal.loads@highwaysengland.co.uk) to discuss requirements *[Adrian Simms] John Powell has provided us with an AiP for the route between Port of Ramsgate and the Site. See attached.*

#### Summary

It is not likely that we would be concerned about the operation and maintenance of the site, subject to confirmation of the likely origin / destinations and temporal profile of trips relating to the OWF.

However, we are currently concerned about the impact of the construction period on the SRN. We require further information on likely routing and temporal distribution of LGV and HGV movements to enable us to provide more detailed comments and confirm our requirements for assessment. *[Adrian Simms] Hopefully the information provided allays any concerns and addresses comments raised. As*

*identified above, we feel that it is unlikely that the SRN will be impacted upon given the distance from the site and predicted 14 two-way trips/per hour.*

I hope our comments are useful, and if you would like to discuss our comments in more detail please contact me to arrange a meeting.

Kind regards

**David**

**David Bowie**

**Area 4 Spatial Planning Team**

Highways England | Bridge House | 1 Walnut Tree Close | Guildford | Surrey | GU1 4LZ

Web: <http://www.highways.gov.uk>

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**From:** Simms, Adrian [REDACTED]  
**Sent:** 19 April 2018 17:36  
**To:** Bowie, David  
**Cc:** Wood, Martin; Sean Leake; [REDACTED] Benchabane Dalila (WO-ECC); Ford, Luke  
**Subject:** FW: FW: Thanet Offshore Wind Farm Extension - High-level capacity assessment

Hi David,

As discussed this afternoon, please find below a copy of the email that was provided to KCC yesterday.

This provides a high-level junction capacity assessment at three junctions on the local road network in vicinity of the Thanet Extension proposed development site.

Summaries are provided for each junction below each model output table.

Hopefully this provides the evidence to highlight that it is unlikely that there would be any material impact at the junctions of the SRN as a result of construction traffic generated from the site.

If you have any questions, please drop me a line.

Best wishes,  
Adrian

**Adrian Simms MRTPI**  
Principal Transport Planner  
Wood Environment & Infrastructure Solutions UK



[www.woodplc.com](http://www.woodplc.com)





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**From:** Simms, Adrian

**Sent:** 18 April 2018 17:21

**To:** 'Richard.Smith@kent.gov.uk'

**Cc:** Wood, Martin

'Sean Leake'

; 'James.Wraight@kent.gov.uk'

'Emma.Wraight@kent.gov.uk'

'Darren.Wadhams@kent.gov.uk'

**Subject:** FW: Thanet Offshore Wind Farm Extension - High-level capacity assessment

Dear Richard,

As discussed on the call this morning, it was agreed that Wood would undertake a high-level capacity assessment of key junctions in vicinity of the proposed development concerning Thanet Extension.

Junction modelling has been undertaken to assess the likely future impact of construction traffic at the following junctions on the construction route:

- Canterbury Road West/A299 [Cliffsend roundabout];
- A299 Hengist Way/A256/Cottingham Link Road [Sevenscore roundabout]; and
- Sandwich Road/A256/Jutes Lane [Ebbsfleet roundabout]

The worst-case peak traffic numbers have been used for this assessment (702 HGV two-way movements (351 arrivals, 351 departures), 200 LV two-way movements (100 arrivals, 100 departures)). These were previously provided in email on 06/04 (see attached).

As these traffic numbers above were for a 12-hour working day (07:00-19:00), the DfT Table *TRA0307 (Motor vehicle traffic distribution by time of day of the week on all roads)* has been used to identify the proportion likely to impact the AM and PM peak hours.

The resultant worst-case impact is:

**AM – 50 HGV two-way (25 arrivals, 25 departures) and 14 LV two-way (7 arrivals, 7 departures)**

**PM – 54 HGV two-way (27 arrivals, 27 departures) and 16 LV two-way (8 arrivals, 8 departures)**

High-level model run results for the key junctions tested are as follows:

**Cliffsend Roundabout**

	AM					PM				
	Queue (Veh)	Delay (min)	RFC	LOS	Network Residual Capacity	Queue (Veh)	Delay (min)	RFC	LOS	Network Residual Capacity
<b>2017 Baseline Traffic</b>										
1 - Canterbury Road	0.4	0.24	0.29	B	38 % [1 - Canterbury Road]	0.3	0.24	0.21	B	44 % [3 - A299 Hengist Way W]
2 - A299 Hengist Way S	1.8	0.09	0.64	A		1.7	0.08	0.63	A	
3 - A299 Hengist Way W	1.4	0.06	0.58	A		2.0	0.08	0.67	A	
<b>2020 Baseline Traffic</b>										
1 - Canterbury Road	0.4	0.26	0.31	C	33 % [1 - Canterbury Road]	0.3	0.25	0.23	C	38 % [3 - A299 Hengist Way W]
2 - A299 Hengist Way S	2.0	0.10	0.67	A		1.9	0.09	0.66	A	
3 - A299 Hengist Way W	1.5	0.07	0.61	A		2.3	0.09	0.70	A	
<b>2020 Base + Dev</b>										
1 - Canterbury Road	0.5	0.27	0.32	C	30 % [1 - Canterbury Road]	0.3	0.26	0.23	C	35 % [3 - A299 Hengist Way W]
2 - A299 Hengist Way S	2.2	0.10	0.69	A		2.1	0.09	0.68	A	
3 - A299 Hengist Way W	1.6	0.07	0.62	A		2.5	0.09	0.71	A	

- There are no identified capacity issues at this junction. The maximum RFC value for the AM and PM peak hours with development traffic is 0.69 and 0.71 respectively.
- The junction operates within capacity on all arms within the future baseline + development scenario.

### Sevenscore Roundabout

	AM					PM				
	Queue (Veh)	Delay (min)	RFC	LOS	Network Residual Capacity	Queue (Veh)	Delay (min)	RFC	LOS	Network Residual Capacity
<b>Lane simulation [Lane Simulation] - 2017 Base Traffic Flow</b>										
1 - A299 Hengist Way E	9.5	0.30		C	% [ ]	2.8	0.11		A	% [ ]
2 - A256	9.2	0.45		D		25.3	0.84		F	
3 - Cottington Link Road	6.7	3.34		F		4.2	3.19		F	
4 - A299 Hengist Way N	1.8	0.18		B		1.0	0.14		A	
<b>Lane simulation [Lane Simulation] - 2020 Base Traffic Flow</b>										
1 - A299 Hengist Way E	12.1	0.39		C	% [ ]	2.9	0.12		A	% [ ]
2 - A256	16.0	0.68		E		40.8	1.25		F	
3 - Cottington Link Road	16.0	7.42		F		9.7	6.85		F	
4 - A299 Hengist Way N	2.2	0.19		B		1.0	0.15		A	
<b>Lane simulation [Lane Simulation] - 2020 Base + Dev</b>										
1 - A299 Hengist Way E	16.4	0.46		D	% [ ]	3.2	0.12		A	% [ ]
2 - A256	18.2	0.77		E		46.6	1.41		F	
3 - Cottington Link Road	19.3	9.61		F		12.9	9.32		F	
4 - A299 Hengist Way N	2.2	0.20		B		1.1	0.15		A	

- The model for this junction has been carried out using lane simulation mode due to the already constrained capacity at this location.
- Large queues of 25 PCUs are shown on the A256 arm during the 2017 PM Baseline, increasing to 46 PCUs for the 2020 Future Baseline scenario.
- Development traffic increases queues by an average of 2-3 PCUs on each arm during the AM and PM peak scenarios.
- This is not considered to be a significant impact.

### Ebbsfleet Roundabout

	AM					PM				
	Queue (Veh)	Delay (min)	RFC	LOS	Network Residual Capacity	Queue (Veh)	Delay (min)	RFC	LOS	Network Residual Capacity
<b>2017 Baseline Traffic</b>										
1 - Sandwich Road	2.5	0.67	0.73	E	-2 % [1 - Sandwich Road]	0.7	0.22	0.43	B	10 % [3 - Jutes Lane]
2 - A256 S	1.5	0.07	0.61	A		3.3	0.11	0.77	A	
3 - Jutes Lane	0.1	0.19	0.11	B		0.2	0.30	0.18	C	
4 - A256 N	7.3	0.28	0.89	C		1.8	0.10	0.64	A	
<b>2020 Baseline Traffic</b>										
1 - Sandwich Road	3.7	0.96	0.82	F	-6 % [1 - Sandwich Road]	0.8	0.24	0.46	B	5 % [3 - Jutes Lane]
2 - A256 S	1.7	0.07	0.63	A		3.8	0.12	0.80	A	
3 - Jutes Lane	0.1	0.21	0.12	B		0.3	0.38	0.22	C	
4 - A256 N	11.1	0.42	0.93	D		2.0	0.10	0.67	A	
<b>2020 Base + Dev</b>										
1 - Sandwich Road	4.2	1.10	0.84	F	-8 % [1 - Sandwich Road]	0.9	0.25	0.47	C	3 % [3 - Jutes Lane]
2 - A256 S	1.5	0.06	0.60	A		3.6	0.11	0.78	A	
3 - Jutes Lane	0.1	0.21	0.12	B		0.3	0.43	0.25	D	
4 - A256 N	14.0	0.52	0.95	D		2.3	0.11	0.70	A	

- This junction experiences capacity issues during the 2017 AM Baseline scenario, with a max RFC value of 0.89.
- This then increases to 0.93 for the 2020 AM Future Baseline scenario.
- Development traffic increases this further to 0.95, however the increase of 0.02 to RFC and an additional 3 PCU queue is not considered to be a significant impact on the junction.

As can be seen from the model outputs, traffic generated by the construction phase of the development (includes HGVs & LVs) results in minimal queues and delays. It is evident that the addition of construction traffic does not impact on the operational performance of the junctions assessed.

This approach is considered to be very robust given that the junctions have been modelled on the worst-case peak movements which only occur over 3 days in the entire construction programme. Information previously provided shows traffic movements are considerably less than the peak movements assessed here over the remainder of the programme.

If you have any questions, please do not hesitate to contact me.

I look forward to your response.

All the best,  
Adrian

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