

## **Save Minster Marshes Objection to Change Request 1: Addition of the Former Pegwell Bay Hoverport to the Order Limits**

Save Minster Marshes strongly objects to National Grid's Change Request 1 (CR1) proposal to extend the Order Limits at the former Pegwell Bay Hoverport. This extension would widen the access corridor from the existing hardstanding and ramp to enable heavier and more frequent vehicle movements across the rewilded hoverport site to reach the intertidal area for construction, operations, and maintenance of the trenchless landfall works.

The proposed extension is neither necessary nor proportionate, fails to comply with the mitigation hierarchy (avoid before mitigate), and would cause avoidable and significant harm. Our objection is grounded in the examination library chronology and the detailed table of applicant statements.

### **Key Grounds of Objection**

- 1. Lack of Necessity and Insufficient Justification** The Examining Authority has already required “further justification” for the full extent of land sought in CR1 (PD notifications, September 2025), noting it exceeds what is required to avoid encroaching saltmarsh (recorded August 2025). The original Order Limits permitted limited O&M access via the existing track and hardstanding using light vehicles only (APP-044 ES Alternatives chapter, paras 2.9.173, 2.9.210). National Grid has not demonstrated why narrower routing, tide-dependent adjustments, or precise pre-construction marking (as per REAC commitments B66–B70) cannot achieve the same outcome without expanding the footprint.
- 2. Viable Alternatives and Failure to Avoid Harm Early scoping** (October 2022) and alternatives assessments explicitly identified opportunities to avoid the NNR and sensitive intertidal habitats entirely by landing south of the River Stour (Scoping Report Vol 1 Part 3, para 3.1.4.3; APP-044 para 3.6.100). National Grid acknowledged designated site sensitivities and the potential for trenchless methods to limit impacts yet consistently prioritised the Pegwell Bay landfall without revisiting less damaging alternatives. Thanet District Council (landowner) has refused permission for hoverport use, citing unacceptable risks to the adjacent NNR/SSSI, a practical barrier that renders the extension unviable.
- 3. Unacceptable Damage to Rewilded Biodiversity** The hoverport supports rare and protected species for which no adequate baseline surveys exist (e.g., reptile surveys excluded the site; invertebrate surveys post-dated inclusion; only a brief walkover in June 2025). Enabling heavy construction traffic (150–200 t cranes, 20–40 t excavators, up to 40 daily movements, vibropiling per 9.13(B) Pegwell Bay Construction Method Technical Note) risks irreversible compaction, fragmentation, disturbance, and long-term degradation of fragile hardstanding and ephemeral vegetation — even with claims of “no clearance”. Pre-construction botanical surveys (REAC B66) are too late and insufficient for Schedule 5 species.

4. **Significant Noise, Disturbance, and Contamination Risks** Cumulative underwater and airborne noise exceeds thresholds for permanent/temporary hearing damage in pinnipeds (REP1-122; marine mammals chapter tables 4.17–4.19), with JNCC mitigation ineffective in practice. The hoverport was constructed on colliery spoil (well-documented, not “anecdotal” — KentOnline 2008 article); heavy vehicle movements risk mobilising heavy metals (arsenic, etc.) into the food chain and SSSI. Frac-out protocols remain inadequate despite PINS rejection of scoping-out (Scoping Opinion tables 3.6.2–3.6.3).
5. **Procedural and Fairness Deficiencies Detailed** methodology for hoverport use emerged only after CR1 submission (December 2025), limiting meaningful consultation. Documents contain contradictions (light vs. heavy use; compound locations; trenchless vs. apparent open works) and inconsistencies (PRoW sensitivity ratings for King Charles III trail/TR15). Late Ecology chapter updates (November 2025) disadvantaged objectors. Suffolk receives preferential intertidal avoidance; Kent impacts are downplayed.

## **Conclusion and Request**

**The addition of the hoverport introduces more potential for damage and avoidable harm to a rewilded, biodiverse site and is contrary to the precautionary principle. The submission of the final construction detail for Pegwell Bay at such a late stage in the DCO process has unfairly disadvantaged the people of Kent and Thanet in particular. The project has been in development for 4 years yet only now is the applicant able to share potential methods for the construction in Pegwell Bay. And even now, there are many unanswered questions. This detail should not have been attached to a Change Request - it is an abuse of the DCO process - and is making a mockery of consultation. We respectfully ask the ExA to carefully consider our points about the use of the Hoverport and the problems with construction in this sensitive area to ensure that this is not an environmental catastrophe in the making.**

DOCUMENTATION REVIEW RELATED TO USE OF HOVERPORT IN NATIONAL GRID'S SEA LINK DCO APPLICATION

AS Ref	Document	Submitted	Paragraph	Statement by applicant	SMM Comment
<a href="#">Not assigned - pre-application</a>	Scoping Report submitted to the Secretary of State on 24 October 2022 (Part 3 of 7 - Volume 1 - Kent Onshore Scheme)	24/10/22	3.1.4.3	The whole of the landfall area of search is designated as the Thanet Coast and Sandwich Bay Ramsar and SPA, Sandwich Bay SAC and Sandwich Bay to Hacklinge Marshes SSSI. These designations are unavoidable at this landfall area, albeit the width of the designations narrow towards the south due to the narrowing of the intertidal area. There would therefore potentially be more opportunity to avoid direct impacts on the designated sites through the use of trenchless installation methods (subject to	National Grid (NG) acknowledged that the site was problematic – but took no further steps to 'Avoid'

				confirmation through further studies and ground investigations). Sandwich Bay and Pegwell Bay National Nature Reserve (NNR) is located within this landfall area but could be avoided by landing the cable to the south of the River Stour.	
	Ibid	Ibid	Page 56	Sandwich and Pegwell Bay National Nature Reserve with chalk cliffs, mud flats, saltmarsh and sand dune habitats that are internationally important for waders and wildfowl both on migration and over wintering.	NG acknowledge the importance and then dismiss it
	Ibid	Ibid	Ibid	Princes Beachlands (6ha) Local Nature Reserve Site is designated for its mosaic of habitats that have international importance for migrating birds.	NG acknowledge the importance and then dismiss it

	Ibid	Ibid	Page 73	Temporary habitat loss/ disturbance (intertidal) Designated Sites Notable Habitats Thanet Coast & Sandwich Bay SPA, Thanet Coast & Sandwich Bay <b>Yes Scoped in for Construction, Maintenance and Decommissioning</b>	NG acknowledge the importance and likelihood of permanent damage to the saltmarsh
	Ibid	Ibid	Ibid	Non-breeding birds (Intertidal) Breeding Birds	NG acknowledge the importance and likelihood of permanent damage and disturbance to birds
<a href="#">Not assigned (pre-application)</a>	Scoping Report submitted to the Secretary of State on 24 October 2022 (Part 7 of 7 - Volume 3 - Figures)	<b>24/10 2022</b>	Part 3 page 72 onwards		The diagrams of the emerging preference show again and again that the Hoverport Mosaic habitat is not acknowledged and all the Designated land protections are ignored in the emerging preference. On page 75, it is clear that there is an option to connect south of the River Stour between the two golf courses. Yet on page 76, the two golf courses have merged. And it appears that these golf courses are more important and to be avoided compared to St Augustines in Thanet. <b>Why is that?</b>
	Ibid	Ibid	Page 91		<b>The map fails to identify the Hoverport or that it is a potential source of contamination even though this information has been available and known since its construction in 1969</b>
	Volume 1, Part 3,	Ibid	Table 3.6.2	NG states that there are no risk of	The ExA did not agree to take it out of scope and stated that the ES 'should provide details of

				contaminants and intends to scope this out for construction, maintenance and decommissioning	protocols/measures to be put in place to prevent break outs or frackouts of bentonite from occurring or minimise impacts should such events occur.' <b>The special risk of the Hoverport is not mentioned – even though it is clearly within the Draft Order Limits (DOL).</b>
	Volume 1, Part 3,	Ibid	Table 3.6.3	NG states there will be no “Damage to/destruction of designated sites of geological importance (operation, maintenance and decommissioning)	The ExA stated that “Scoping Report paragraph 3.6.4.13 identifies that the Sandwich Bay to Hacklinge Marshes SSSI is designated as a geological conservation review site. The Scoping Report has not explained why there would be no impact pathway to this site during the operation, maintenance and decommissioning of the Proposed Development, therefore the Inspectorate does not agree to scope this matter out. The ES should explain what impact pathways there are to any geologically designated sites and assess significant effects where they are likely to occur.” <b>Has this truly happened?</b>
	Volume 1, Part 3,	Ibid	Table 3.8.2 and Table 3.8.7	NG attempted to take out of scope “PRoW diversions or closures on road links, road junctions and national/regional walking and cycling routes – construction and decommissioning”	The ExA agreed “The Inspectorate agrees that significant effects on road links, road junctions and national/regional walking and cycling routes as a result of closures or diversions of PRoW during construction and decommissioning are unlikely and this matter can be scoped out.” <b>However the change to the use of the Hoverport makes this untenable and the decision should be reversed.</b>
<a href="#">Not assigned</a>	Volume 1, Part 4, 4.2.4.15	Ibid	4.2.4.15		The Ex A stated “The Applicant has not identified any sensitive geological features in the vicinity of the proposed cable route. However, as raised

					<p>by Natural England in their advice (see Appendix 2 of this Opinion) geological interest features listed in the Sandwich Bay to Hacklinge Marshes SSSI citation are of high value.</p> <p><b>The ES should identify all sensitive geological features and provide an assessment where likely significant effects could occur.” Have they ever treated these as Significant Effects?</b></p>
	Volume 1, Part 4,	Ibid	Table 4.3.2 and Paragraph 4.3.5.5 &	<p>NG attempted to take out of scope  “Changes to marine water quality during cable installation and cable lay from the use of HDD drilling fluids (construction)” and  “Changes to marine water quality from accidental leaks and spills from vessels, including loss of fuel oils (construction, maintenance and decommissioning)”</p>	<p>“The Inspectorate agrees that this matter can be scoped out on the basis that the mitigation measures proposed within the outline CoCP should be sufficient to address the likely impacts and avoid a likely significant effect. The ES should include details of the mitigation and explain how its delivery is assured with reference to relevant documents.”</p> <p><b>Have we ever seen anything in relation to mitigation for this?</b></p>
	Volume 1, Part 4,	Ibid	Table 4.3.3 and Table 4.3.6	<p>NG proposed to take out of scope  “Underwater sound impacts on marine invertebrates (intertidal and subtidal ecology) (construction,</p>	<p><b>The Inspectorate disagreed and it was left in scope. It is notable that the effect of sound on Cetaceans and Seals is not mentioned at all.</b></p>

				maintenance and decommissioning)”	
	Volume 1, Part 4,	Ibid	Table 4.4.4	NG proposed to take out of scope “Effects on marine water quality from use of HDD drilling fluids during construction” and “Leaks and Spills from vessels”	<p><b>The Inspectorate disagreed and stated</b> “The Scoping Report seeks to scope this matter out because the proposed mitigation measures include a commitment to only use inert, biodegradable drilling fluids which would be disposed of at a licenced disposal site. The Inspectorate agrees that this matter can be scoped out of further assessment. However, as noted in point 2.1.6 above, the ES should provide information on the mitigation measures relied on to avoid likely significant effects, including the measures which would be employed in the event of an accidental leak of drilling fluids.” And “The Inspectorate agrees that, provided the measures to mitigate the risks of leaks and spills are clearly described in the ES and secured in the dDCO, this matter can be scoped out of further assessment.”</p> <p>This issue was not revisited by the applicant until their Pegwell Bay Construction Note. In Document 9.73 Applicant’s Response to First Written Questions’, the applicant confirmed that ‘the volume of drilling fluid in the bore that is above the exit elevation, approximately 10 m3, might be discharged to the surface’. 10 cubic metres of drilling fluid discharged to an internationally important RAMSAR site is unacceptable.</p>
	Volume 1, Part 4,	Ibid	Table 4.4.4		The Inspectorate stated “Natural England’s advice (see Appendix 2 of this document) identifies potential impacts on fish and shellfish



					populations from the colonisation of artificial substrates associated with the Proposed Development. The Inspectorate considers that these impacts should be addressed in the ES.” <b>Was this ever provided?</b>
	Inspectors general comment in this document	Ibid	Page 80 Methodology for bringing cables onshore/07/re		“It is not clear what method will be used to bring the cables onshore from the subtidal to intertidal area. The Applicants attention is drawn to the advice from the EA (see Appendix 2 of this Opinion) which advises that for all potential methods for bringing cables onshore, potential disturbances to benthic ecology are scoped in. The Inspectorate agrees that this level of detail will support the assessment and the understanding of likely significant effects associated.” <b>This detail was not provided until the Pegwell Bay Construction Method Technical Note which was issued by the applicant AFTER CR1 in December 2025. Why was it not provided earlier?</b>
	Volume 1, Part 4, Section 4.5.7	Ibid07	Page 87 Proposed assessment methodology		“the assessment should include modelling of underwater noise propagation during construction and decommissioning and the area affected by increased noise levels should be shown on figures within the ES.” <b>Has this been done?</b>
	Notice of Further Targeted Consultation	<b>08/07/24</b>	Page 1	NG state “We have also identified a further construction and maintenance access route off Sandwich Road via	At this point in time the only documents provided for examination did not include detail of how the Hoverport would be used? <b>This was not provided until the Pegwell Bay Construction Method Technical Note which was issued by the applicant AFTER CR1 in</b>

				<p>the former hoverport and are proposing various other changes to construction and maintenance access routes, compounds, and temporary overhead line diversions. New areas of land for environmental mitigation and enhancement have also been added to our proposals. We have also made a range of smaller changes to our proposals. These include various refinements, including reductions and increases to the size of the draft order limits, which comprise the land we would need to build and operate Sea Link. We are also providing further detail on our construction methodology, including changes to</p>	<p><b>December 2025. Why was it not provided earlier?</b></p>
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				planned working hours.”																									
<a href="#">REP1A-025</a>	6.12 Biodiversity Net Gain Feasibility Report	23/4/25	Conclusion 4.1.1	<p>“The Proposed Project is predicted to result in <b>a net loss for area habitat units in both Suffolk and Kent</b>, a net gain in hedgerow units in Suffolk, <b>a net loss in hedgerow units in Kent</b> and net gain in watercourse units in Suffolk and <b>a net loss in watercourse units in Kent</b>. Tables 4.1 and 4.2 detail the additional units required to achieve a 10% gain for both Suffolk and Kent. “</p>	<p>NG knew in April 25 that this would be disastrous for Kent. This is what they stated would be required</p> <p><a href="#">Table 4.2 Additional units required to achieve 10% BNG - Kent Site</a></p> <table> <tr> <th>Habitat Type</th><th>Baseline</th><th>Post-Development</th><th>Total Net Unit Change</th><th>Total Net % Change</th><th>Units Required to achieve 10% BNG</th></tr> <tr> <td>Area Units</td><td>323.77</td><td>308.56</td><td>-15.21</td><td>-4.70%</td><td>+47.58</td></tr> <tr> <td>Hedgerow Units</td><td>17.33</td><td>12.39</td><td>-4.94</td><td>-28.51%</td><td>+6.67</td></tr> <tr> <td>Watercourse Units</td><td>42.95</td><td>40.29</td><td>-2.66</td><td>-6.20%</td><td>+6.96</td></tr> </table>	Habitat Type	Baseline	Post-Development	Total Net Unit Change	Total Net % Change	Units Required to achieve 10% BNG	Area Units	323.77	308.56	-15.21	-4.70%	+47.58	Hedgerow Units	17.33	12.39	-4.94	-28.51%	+6.67	Watercourse Units	42.95	40.29	-2.66	-6.20%	+6.96
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	Ibid	Ibid	5.2.6.and 5.2.7	<p>“The remaining biodiversity unit requirement is anticipated to be delivered through: ● partnership delivery to provide registered off-site biodiversity units with wider environmental and societal benefits; ●</p>	<b>Where is the final detail of this?</b>																								

				National Grid's Nature and Climate Framework suppliers to provide registered offsite biodiversity units with wider environmental and societal benefits; and ● working with other registered off-site biodiversity unit providers.	
<a href="#">AS-016</a>	6.1 Environment statement Non-technical Summary	<b>Dated March 25 Uploaded 23/04/25</b>	6.2.5.	“Wet ditches were present throughout the Kent Onshore Scheme delineating the field edges through several land parcels. Beyond St Augustine’s golf course, saltmarsh was present within the most eastern part of the Kent Onshore Scheme. “	<b>Does not mention the Hoverport once</b>
	Ibid	Ibid	6.2.6.	“Ornithological features at the Kent Onshore Scheme include Cetti’s warbler, fieldfare, kingfisher, marsh harrier and redwing. <b>Abbey Farm</b>	<b>Again no mention of the Hoverport and the mosaic habitat there</b>

				<p>Wetlands and the periodically flooded fields in Ash Levels south of the River Stour are used by a wide range of nonbreeding birds in winter. Some non-breeding birds (notably golden plover) also forage in the arable fields around the proposed Minster Converter Station. A wide range of other notable bird species have been recorded during the breeding season, many of them likely breeding within the survey area (although not necessarily within the proposed Kent Onshore Scheme). The intertidal zone was of considerable significance. Dunlin, cormorant, oystercatcher and sanderling were recorded in large</p>	
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				<p><b>numbers.</b> No dormice have been recorded in surveys, but there are records of badger in the eastern part of the Order Limits common reptile species have been recorded in the aforementioned <b>areas of acid grassland, which is also supports some uncommon invertebrates, and riparian mammals (particularly water vole) have been recorded in many of the ditches.</b>"</p>	
	Ibid	Ibid	6.2.10	<p>"In the absence of additional mitigation, disturbance from construction noise is predicted at Sandwich Bay to Hacklinge Marshes SSSI as well as to birds outside of designated sites. Temporary habitat loss of approximately 5 ha of land from the</p>	<p><b>No mention of Hoverport - any reader would fairly assume that it will not be affected</b></p>

				<p>Ash Level and South Richborough Pasture Local Wildlife Site would occur due to construction of the works areas and haul road necessary to reach the pylon construction areas. Construction lighting is predicted to result in adverse effects in the absence of mitigation through bat and fish disturbance. Bat habitat will also be affected in the absence of mitigation due to gaps in hedgerows during construction.”</p>	
	Ibid	Ibid	6.2.11	<p>“An adverse effect on bird habitat and bird disturbance is predicted through habitat loss, specifically the reduction of arable land, resulting in an adverse effect for ground nesting birds, such as skylark. In the long-term 10 ha of</p>	<p><b>This is the first time that mitigation is mentioned for near to the site. Previously in the same pack all that is mentioned is off-site (see 6.12, 5.2.6. and 5.2.7 above)</b> Loss of habitat at Hoverport is not discussed.</p>

				arable habitat enhancement to address these losses are proposed to address this effect, resulting in a significant positive effect for golden plover and skylark. Habitat creation as part of the converter station and substation proposals would also result in a positive significant effect for birds, water voles, terrestrial invertebrates and aquatic macrophytes.”	
<a href="#">REP3-002</a>	2.3 Land Plans	Ibid	Kent plan, sheet 5 page 18		Clearly shows the Hoverport is not in scope of the DOL
<a href="#">REP1-002</a> <b>NB - examination library says document has been superseded by CR1-0007 which is Suffolk.</b>	2.5.2: Work Plans -Kent	Ibid	Page 6	Access route is clearly marked directly through the Hoverport	



<b>Kent is missing...</b>					
<a href="#">CR1-011</a>	2.7.2. Access, rights of way and public rights of navigation plans - kent	Ibid	Page 18		Shows temporary managed footpath closures through the Hoverport for the period of the construction.
<a href="#">CR1-025</a>	2.14.2 Indicative General Arrangements Plans - Kent	Ibid	Page 6 Pegwell Bay sheet 5		The first indication is that the compound would be located at K06 part of Work No.8 and would not be the Hoverport
<a href="#">APP-044</a>	6.2.1.3. Alternatives considered	Ibid	3.5.34 to 3.5.36		Description of the proposed access point does not describe the Hoverport and mistakenly says that the agricultural area includes orchards (they must have been looking at maps from the 1970s)
<a href="#">APP-044</a>	6.2.1.3. Alternatives considered	Ibid	3.6.100	“A landfall to the north of the River Stour in Kent would result in direct impacts on the Pegwell Bay designated sites, however it was considered likely that this would be limited to a <b>short-term temporary impact and that the more sensitive saltmarsh</b>	Note – short term temporary damage can be avoided. Hoverport and compound not mentioned.

				<b>habitats could be avoided by using trenchless installation methods (subject to confirmation through further studies and ground investigations)."</b>	
	Ibid	Ibid	3.6.116	"key issues including access to the east of the River Stour and weight restrictions on local roads around the Sandwich Bay Estate and Royal St George and Royal Cinque Ports golf courses."	Why have weight restrictions not been taken into account at the Hoverport (it was clearly going to be used as a construction access route)?
	Ibid	Ibid	2.9.173	"There is a permanent access route off Sandwich Road and into the saltmarsh through the former hoverport site. <b>However, this is for inspection and maintenance via light vehicles and a few qualified personnel with very minor access needs at a regular interval,</b>	The first time the Hoverport is mentioned and it is clearly intended for light use. But it is the sin of omission because it does not specify usage during construction.

				<b>and involves using the existing track and hardstanding to access the saltmarsh area.”</b>	
	Ibid	Ibid	2.9.210	<p>“There is a proposed permanent access route into the saltmarsh at Pegwell Bay off Sandwich Road and through the former hoverport site. The hoverport site is known to support <b>rare invertebrates, including fiery clearwing moth and Sussex emerald moth, both of which are legally protected under Schedule 5 of the Wildlife &amp; Countryside Act 1981 (as amended).</b> It also contains <b>habitat suitable for reptiles and supports populations of man orchid and lizard orchid.</b>”</p>	The applicant has not carried out any surveys of the site and blame Thanet District Council for not permitting them a licence. They carried out a walkover of the site in June 2025.
	Ibid	Ibid	2.7.15	“The old <b>hoverport</b> includes an extensive	The applicant states that they will not need to remove any vegetation. Without providing full

				area of hardstanding made up of old concrete with ephemeral encroachment; species include pendulous sedge, St John's wort ( <i>Hypericum perforatum</i> ), sea buckthorn ( <i>Hippophae rhamnoides</i> ), pampas grass ( <i>Cortaderia selloana</i> ), hard rush, soft rush ( <i>Juncus effusus</i> ), bramble and stonecrop ( <i>Sedum</i> spp.)."	detail of the size of vehicles they propose to bring onto the hoverport (or indeed the number of vehicles occupying it at any one time), this assertion is meaningless. We have seen the extensive and needless amount of damage NG's contractors have caused to agricultural land in their most recent round of surveys (and shared our photographs with the ExA - please see our previous submission).
	Ibid	Ibid	2.3.4.	"Concern was also expressed about the potential for locating a compound in the former hoverport site given the presence of rare invertebrates and orchids, leading to the compound location being altered."	So this indicates that they took this into account and altered the compound location.
	Ibid	Ibid	2.7.47	"[ ] Habitat adjacent to the existing track on the former	They have only carried out a site walkover in June 2025. They have not carried out any reptile or bat surveys.

				<p>hoverport site is also suitable for reptiles. This area was included within the Order Limits too late to be included in reptile survey, but since the former hoverport will only be used for operational monitoring and maintenance access no civil engineering highway works are planned; rather the existing track and hardstanding areas will be used.”</p>	
	Ibid	Ibid	2.7.53	<p>“survey data, records were obtained from other organisations and Kent Wildlife Trust confirmed that the former hoverport site supports rare invertebrates, including fiery clearwing moth and Sussex emerald moth, both of which are legally protected under Schedule 5 of the Wildlife &amp;</p>	<p>They excuse themselves from surveying the Hoverport once again, blaming TDC for not issuing them with a licence. We can find no evidence of the applicant asking TDC for a licence to carry out surveys.</p>

				Countryside Act 1981 (as amended). Survey of the hoverport site was not possible for this ES chapter as it was included in the Order Limits after the terrestrial invertebrate survey season.”	
<a href="#">APP-065</a>	6.2.3.5 Part 3 Kent Chapter 5 Geology and Hydrogeology	Ibid	5.7.13 and  5.7.14	<p>“there are no Regionally Important Geological Sites (RIGS) or geological Sites of Special Scientific Interest (SSSI) present within the study area.”</p> <p>“The exception to this is the Sandwich Bay to Hacklinge Marshes SSSI which is also designated as a Geological Conservation Review Site and forms the eastern part of the Order Limits within the Kent Onshore Scheme, at Pegwell Bay.</p>	<p>Statutory protection under Wildlife &amp; Countryside Act 1981. Must obtain Natural England consent. Offence to damage features.</p> <p>NEMO has already damaged the site.</p> <p>In Appendix B3 (REP3-117) from Natural England (NE), NE references the applicant’s commitment to only carry out noisy work outside of breeding season (March to September) and say if that is the case, then NE is content with the impact on the Marshes SSSI.</p> <p>However, in NG's Pegwell Bay Construction Method Technical Note, NG say they are planning on drilling and ducting in Q2 and Q3 2027. So this matter is not resolved and they have reneged on their commitment to NE.</p>

<a href="#">APP-067</a>	6.2.3.7 Part 3 Kent Chapter 7 <b>Traffic and Transport</b>	Ibid	7.7.4	<p>“Sandwich Road is a single carriageway road that connects the A256 at Ebbsfleet Roundabout in the south and the A299 at the Lord of the Manor Roundabout in the north and passes through Cliffsend. The speed limit varies along its length but is generally 40mph with a section of national speed limit adjacent to the Pegwell Bay Country Park and a section of 30 mph through Cliffsend.</p> <p><b>There is also a restriction on vehicles over 7.5t (except for access) along the length of Sandwich Road.”</b></p>	See weights of plant that are needed for the construction including their own description of a 150 to 200t crane (reference 3.2.1. Of 9.13 (B) Pegwell Bay Construction Method Technical Note .
	Ibid	Ibid	7.7.10	<p>“Baseline traffic data have been obtained for the surrounding highway network within the study area based on ATC and MCC surveys carried out in January 2024”</p>	The baseline data is from January – hardly representative of peak traffic for an area that is a magnet for holidaymakers and day-trippers and is totally unrepresentative.

	Ibi	Ibid			Footpaths will be temporarily closed across the Hoverport – disadvantaging those who want to get close to nature but have mobility issues. This is one place where differently abled birdwatchers can get close to wild birdlife in Thanet.
	Ibid	Ibid	7.22 Sensitivity of PRow and walking/cycling routes to Severance, Pedestrian Delay, Fear & Intimidation and Non-Motorised User Amenity	TR15 (which is part of the King Charles III national path) impact to severance classified as LOW  TR33 impact to severance classed as NEGLIBIGLE  King Charles III footpath (same as TR15) classed as MEDIUM	The two sets of data are incompatible and it appears NG is unaware that closing TR15 is also closing part of the King Charles III national coastal trail, which is mentioned separately with separate sensitivity ratings.
	Ibid	Ibid	7.23. Sensitivity of PRow for PRow Diversions and Closures	TR15 (as above) impact described as MEDIUM and TR33 as LOW and then the King Charles III footpath is separately described as HIGH	The two sets of data are incompatible and it appears NG is unaware that closing TR15 is closing part of the King Charles III national coastal trail, which is mentioned separately with separate sensitivity ratings.
<a href="#">AS-111</a>	6.2.3.9 Part 3 Kent Chapter 9 <b>Noise and Vibration</b>	Ibid	9.6.1	The study area for construction noise effects includes NSR <b>within 300 m from the construction works</b> associated	Construction noise receptors do not include Cliffsend or mention the Hoverport. Nor do they take into account construction noise and vibration for the bird assemblage. The distance from the hoverport to the nearest houses is under 200m. These homes were not targeted in



				with the Proposed Project, excluding traffic on the public highway [ ] and DMRB LA 111	NG's consultation for CR1. Residents and local businesses have not been made aware of NG's plans to use the hoverport for construction and operation.
	Ibid	Ibid	9.6.2	The study area for construction vibration effects, based on guidance from BS 5228-2 (BSI, 2014) and DMRB LA 111, is 100 m from the closest construction activity with the potential to generate vibration impacts at NSR.	Likewise for vibration – effects on ornithology, cetaceans and pinnipedia
	Ibid	Ibid	9.9.4		Lists where noise will be produced. There is no mention at this date (April 2025) of the construction methods for piling the base of the converter station on the marshes. We were directed to 6.4.3.9 ES Figures Kent Noise and Vibration
<a href="#">AS-141</a>	6.4.3.9 ES Figures Kent Noise and Vibration	Ibid	Page 4		The noise receptors are focussed entirely on traffic along the roadway and do not take into account any noise and vibration impacts from coffer dam construction in the bay and using the Hoverport.
<a href="#">AS-133</a>	7.5.8.2 (B) Outline Construction Noise and Vibration	Sep 2025	2.5.1 Core Construction Working hours	Monday – Friday: 0700am–1900pm; and ● Saturday, Sundays and Bank	<b>So the workings at Pegwell Bay could easily be 24 hours. The applicant caveats every single boundary and commitment</b>

	Management Plan - Kent (Clean)			Holidays: 0700am–1700pm.  And 2.5.3 list of <b>exceptions</b> which includes Trenchless crossings and all marine works	
	7.5.8.2 (B) Outline Construction Noise and Vibration Management Plan - Kent (Tracked Changes)	Ibid	4.6.8.	“The total ambient noise level, LAeq,T from all sources when measured between 1.2 m and 2 m above the ground at the monitoring locations will either not exceed either the appropriate threshold stated in Table E.1 of BS 5228 - 1, or an the appropriate level that is agreed with Thanet District Council and/or Dover District Council through the Section 61 process, <b>whichever is higher.</b> ”	They will go for the highest threshold level they can
	Ibid	Ibid	5.5.1.	Complaints Procedure	There is no acknowledgement of the risks to pinnipeds in Pegwell Bay and how this can be properly assessed and managed for exceedance. It is purely focussed on Human receptors

<a href="#">APP-177</a>	6.3.3.7.C ES Appendix 3.7.C Receptor Sensitivity Levels	Ibid	Table Receptor Sensitivity Levels	K-RL7 – Sandwich Road from Ebbsfleet to Lord of the Manor Receptor Sensitivity Levels – sensitivity to <b>Severance</b> is classed as <b>Medium</b> And <b>Hazardous Large</b> <b>Loads Negligible</b>	<b>There has been no new Sensitivity Report following CR1.</b> The applicant maintains they had always planned to use the hoverport for construction and operation. They have deliberately obscured this fact in all their documentation. Further, their Pegwell Bay Construction Technical Note should have formed part of the documentation of CR1. Why was it not included?
<a href="#">APP-183</a>	6.3.3.7.I ES Appendix 3.7.I Magnitude of Change	Ibid	Table Magnitude of Change	K-RL Sandwich Road from Ebbsfleet to Lord of the Manor Severance change is classed still as <b>Medium</b> and Hazardous Large Loads <b>Small</b>	<b>There has been no new Magnitude of Change Report following CR1.</b> The applicant maintains they had always planned to use the hoverport for construction and operation. They have deliberately obscured this fact in all their documentation. Further, their Pegwell Bay Construction Technical Note should have formed part of the documentation of CR1. Why was it not included?
<a href="#">AS-123</a>	6.3.3.9.D ES Appendix 3.9.D Kent Operational Noise Assessment	Ibid			No mention whatsoever of noise from drilling in Pegwell Bay
	Ibid	Ibid	1.5.32 – 1.5.34	Existing disturbance	Existing disturbance should not be used to justify further disturbance. The BidWise East Kent programme is working hard to educate users of the NNR about bird disturbance. It will all be a complete waste of time if NG is allowed to coffer dam and construct in Pegwell Bay. While this is not part of the hoverport consultation, the Pegwell Bay Construction Technical Note is inextricably linked to NG's

					proposal to carry out construction via the hoverport.
<a href="#">APP-155</a>	6.3.3.2.I ES Appendix 3.2.I Reptile Survey Report	Ibid	Whole document searched		Does not include any mention of Pegwell Bay, National Nature Reserve or the Hoverport – although the access to the mudflats is clearly shown through it
<a href="#">APP-198</a>	6.3.4.2.C ES Appendix 4.2.C Intertidal Surveys 2023	Ibid	3.2.1 Pegwell Bay	“The survey area comprised a box within the southern half of the bay about 400 m along the upper shore, to the south of Cliffsend and out east southeast towards the lower shore, for about 1 km (Figure 6).”	Presumably the Hoverport?
	Ibid	Ibid	3.2.1 Pegwell Bay	“The 100 m wide expanse of saltmarsh and coastal vegetation between the lagoon and the sandflats to their seaward was not included in the survey.”	Why not?
<a href="#">APP-198</a>	6.3.4.2.C ES Appendix 4.2.C Intertidal Surveys 2023	Ibid	Ibid		Disturbance to this strata of any kind will interfere with nature’s ability to recover and recycle this damaged land. Note that the Background concentration is for undisturbed strata. Any disturbance will increase the chances of heavy metals being introduced into the food chain at greater levels than currently.

					In addition the underlying platform for the Hoverport contains red shale and black shale, which when mixed with seawater creates a battery effect that can corrode metals. Not to mention simply releasing further heavy metals and pollutants.
	Ibid	Ibid	Appendix 7	Survey photos from June 23	Where are the photographs of the vegetation at Pegwell? The Hoverport supports rare man, bee and Lizard orchids amongst many other plants. Why is there no evidence of the applicant's 'walkover' in June 2025? We have no evidence that they actually did this or what it consisted of. Where is the report?
<a href="#">APP-353</a>	7.5.9.2 Outline Public Rights of Way Management Plan - Kent	Ibid	2.5.8.	<p>"In terms of the construction phase, movements along the existing foreshore access (Pegwell Road) track will be required for <b>compound installation (foreshore) including soil stripping, haul road installation, compound stone and surfacing, and drainage.</b> The movements would interact with PRow TR33 and TR15; therefore, site fencing and crossing gates</p>	<p>It is mystifying whether the Hoverport will be used as a compound or not. This does suggest a Foreshore compound will be needed - where is this? K06 is not foreshore.</p> <p>The combined weight of all the construction across the Hoverport is not detailed in this document – nor is there any explanation of the duration of this use.</p> <p>In other documents (CR1a-003) they have categorically stated that the Hoverport will not be used as a compound. With conflicting information in the documents we find it hard to believe what NG state.</p>

				will be installed to separate construction vehicles and PRow users. This provision would remain in place for <b>the full duration of the construction</b> works at this part of the Kent Onshore Scheme.	
	Ibid	Ibid	2.5.9.		<b>The same again for any maintenance works without any detail of likelihood and duration</b>
	Ibid	Ibid	2.5.10 in relation to TR15 and TR33 KCIII Coast trail	“In addition to the above, whilst not classified as a PRow, the existing pedestrian/cycle route which runs north-south to the west of (and parallel with) the A256 will be temporarily stopped-up and locally diverted during the construction phase (during cable trenching works only) and then <b>permanently stopped-up and locally diverted (realigned) to cross the permanent</b>	Where is the detail of the <i>Permanent</i> closure and new Access Road – <b>it does not clearly show a diversion to the cycle path in 2.7.2</b>  <b>AND is this not supposed to be trenchless construction through the bay until the Joint Bay the other side of the golf courses?</b>

				<p><b>access road during the operational phase.</b> Access to the pedestrian/cycle route will be retained at all times with the proposed diversions in place. Further details relating to this route are shown on Application Document <b>2.7.2 Access, Rights of Way and Public Rights of Navigation Plans – Kent</b></p>	
			<p>Page 26 in relation to TR15 and TR33 KCIII Coast trail</p>	<p>“In terms of the construction phase, movements along the existing foreshore access (Pegwell Road) track will be required for compound installation (foreshore) including soil stripping, haul road installation, compound stone and surfacing, and drainage, as well as for <b>duct installation and cable</b></p>	<p><b>This is the first we hear that construction at Pegwell Bay will be predicted 6 months. This paragraph adds Duct Installation and Cable installation to the list of works</b></p> <p><b>This is not trenchless!</b></p>

				<p><b>installation.</b> The movements would interact with PRow TR15 (for circa six months of the programme, at different times); therefore, site fencing and crossing gates will be installed to separate construction vehicles and PRow users, which would be monitored when in use. This provision would remain in place for the full duration of the construction works at this part of the Site, given that these works would be carried out at different times during the construction programme.</p>	
	Ibid	Ibid	Ibid re TR33	<p>“Public footpath (circa 1.2 km in length) which runs between Sandwich Road (west) and Pegwell Road (east) along the coastline (largely non-</p>	<p><b>Largely unused is a complete lie.</b> Anyone with disabilities, small children and pushchairs uses this route to access the rewilded Hoverport site. The site is not accessible by road. It does not mean it is unused.</p>



				trafficked), crossing the gated access road ( <b><i>largely unused</i></b> ) to the former hoverport,	
<a href="#">REP1A-025</a>	6.12 (B) Biodiversity Net Gain Feasibility Report ( <b>Tracked</b> ) - Accepted at the discretion of the Examining Authority	July 2025			<b>This appears to not include anything in relation to the likely damage to the Hoverport during the construction phase.</b>
<a href="#">REP3-023</a>	6.2.4.4 (C) Part 4 Marine Chapter 4 Marine Mammals (Tracked) - Accepted at the discretion of the Examining Authority	Ibid	Table 4.17	Between 0 and 86 Khz And Up to 450 SPLrms for some construction activities	Peak sound levels are included for typical construction activities that will be needed in Pegwell Bay. Sound Ranges up to 86 KHz and Sound Pressure level SPLrms (Not peak) are shown. While this document is not specifically linked to CR1, we have not had this information until the Pegwell Bay Construction Technical Note was issued which details how the hoverport will be used. In our view, this information must be included in this consultation.
	Ibidd	Ibid	Table 4.18 Auditory Threshold for marine mammals	40 -90 Khz auditory range for seals in water	Shows the hearing range of cetaceans and pinnipeds (harbour and grey seal in Pegwell)
	Ibid	Ibid	4.9.10		Explains how damage to hearing can occur in these animals
	Ibid	Ibid	Table 4.19 PTS and TTS	Permanent Hearing Loss can occur from	See above – some activities will result in 450 SPL and excavators emit 90 dB(A) or above -

			thresholds for marine mammals exposed to underwater sound sources	ranges of 185 to 218 SPL Peak	well over the level at which permanent hearing loss will occur in Pinnipeds
	Ibid	Ibid	4.9.11	“Thus, the adoption of JNCC mitigation measures (JNCC, 2017)(JNCC, 2017; JNCC, 2025), particularly the presence of an observation zone and period of observation <b>to exclude animals from an area 500 m around the sound source when it begins</b> , is an effective tool used to minimise injury to marine mammals from underwater sound sources.	There is no description of how this will be managed in practice and seems unlikely to be effective
	6.4.4.4 (B) ES Figures Marine Mammals (Clean)	Ibid	Figure page 9 for Harbour and Grey seals		Only supplied after the consultation had started and measurements show greater than 10 (>10) – which is misleading when there are regularly groups of 50 and up to a peak of 144 from June through to April. May is the only month that you will be unlikely to see them
<a href="#">REP1-050</a>	6.2.3.2 (C) Part 3 Kent Chapter	Sep 2025	2.3.4.	“Other key feedback related to concerns	There is much to unpick in this. Firstly the consultation could not have considered

	2 Ecology and Biodiversity (Tracked)			<p>over impacts on Minster Marshes and Ash Level &amp; South Richborough Pasture (including from the new section of overhead line), and the designated sites (Sandwich Bay SAC, Thanet Coast to Sandwich Bay SPA/Ramsar, Sandwich Bay to Hacklinge Marshes SSSI). In the latter case this was particularly due to uncertainty at the time the consultation was undertaken as to whether open cut trenching would be required within the SSSI (Pegwell Bay) to deliver the Kent Onshore Scheme. The commitment to a trenchless method and matters such as drill depth are included in the impact assessment of this chapter.</p>	<p>Trenchless construction in Pegwell Bay – because it had not been offered. But at this point – Trenchless crossing is chosen and described in further detail in this document.</p>
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				<p>Concern was also expressed regarding risk of frac out and impacts on surface hydrology in Pegwell Bay if a trenchless option was chosen. Risk of frac out is also covered in the impact assessment section of this chapter. Concern was also expressed as to whether all alternatives to avoiding traversing the SSSI at all had been explored.</p> <p>Application Document 6.2.1.3 Part 1 Introduction Chapter 3 Main Alternatives</p> <p>Considered sets out the main alternatives considered in relation to the Kent Onshore Scheme including the reasons behind the decision to cross Sandwich Bay to Hacklinge Marshes SSSI using a</p>	<p><b>Also it appears that the decision was taken that the Hoverport would not be used as a compound at this point in time (September 2025)</b></p>
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				trenchless technique and crossing the River Stour by overhead line. <b>Concern was also expressed about the potential for locating a compound in the former hoverport site given the presence of rare invertebrates and orchids, leading to the compound location being altered.</b>	
<a href="#">REP1-050</a>	6.2.3.2 (D) Part 3 Kent Chapter 2 Ecology and Biodiversity (Tracked)	21 Nov 2025	2.4.65	<p>“Despite the definitions of ‘moderate adverse’ and ‘major adverse’ being identical, professional judgment has been used to distinguish between moderate and major impacts, taking account of the scale, duration, or reversibility.”</p>	<p><b>On 21 November 2025 – the applicant issues another update to this key document that affects Pegwell Bay and explains for the first time how they propose to use the Hoverport.</b> This was supplied too late for people to refer to it in their submissions in October – NG were allowed to submit this late at Deadline 1 – this is not fair</p> <p>We therefore reserve the right to mention previous documents as they relate to the Hoverport and Pegwell Bay.</p> <p>This paragraph adds some additional obfuscation. This means that major adverse effects can be classed as moderate. This is not acceptable.</p>

	Ibid	Ibid	2.7.47	<p>“Habitat adjacent to the existing track on the former hoverport site is also suitable for reptiles. This area was included within the Order Limits too late to be included in reptile survey, but since the former hoverport will only be used for operational monitoring and maintenance access no civil engineering highway works are planned; rather the existing unvegetated track and hardstanding areas will be used and there will be no vegetation clearance.</p>	<p>The Hoverport surface is not suitable for construction traffic vegetated or unvegetated. Weight of equipment on the fragile surface will cause lasting damage. Why has the applicant not carried out any reptile surveys?</p>
	Ibid	Ibid	2.9.7	<p>“There would be no terrestrial habitat loss from any internationally or nationally important wildlife sites. Thanet Coast and Sandwich Bay SPA/Ramsar site and Sandwich Bay SAC would be</p>	<p>K05 is on the Golf course to the north of the Jet Garage.</p> <p>The photos of the work on the mudflats in the Technical Note - appear to show trenching. This is not a trenchless technique at this point and it will undoubtedly destroy habitat.</p>

				traversed by the Proposed Project. <b>However, this would be undertaken using trenchless technique from a compound (K05)</b> approximately 470 m west of the SPA/SAC/Ramsar site. As such there would be no surface works within the terrestrial or saltmarsh parts of the SPA/SAC/Ramsar site.	
	Ibid	Ibid	2.9.9 to 2.9.12	NG Details the method for recovering stuck drilling equipment and also how the underlying aquifer water pressure at the joint bays (Exit Points) will be managed to ensure there is no damage	There is mention of Sump Pumps (the first time this has been encountered. <b>Are sump pumps included in the construction plant list?</b>
	Ibid	Ibid	2.9.60	“It is proposed for some construction plant to access the trenchless exit pits and trenched	They have done no other surveys and do not plan to do so it seems – but are only now taking note of the rare invertebrates and plants. Reptiles are still ignored.

				<p>construction in Pegwell Bay through the former hoverport site. The hoverport site is known to support rare invertebrates, including fiery clearwing moth and Sussex emerald moth, both of which are legally protected under Schedule 5 of the Wildlife &amp; Countryside Act 1981 (as amended). It also contains habitat suitable for reptiles and supports populations of man orchid and lizard orchid. However, the hoverport retains extensive areas of hardstanding that remain unvegetated. For the first stretch the existing track will be used (the habitat of interest being either side of that track) then for the final stretch</p>	<p>Construction Plant Visitors – will drive across the Hoverport – contradicting previous explanation of the use of the Hoverport</p>
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				<p><b>construction plant visitors will drive across the open unvegetated areas of hardstanding,</b> thus avoiding habitat suitable for orchids, rare invertebrates or reptiles. There will thus be no vegetation clearance, although some pruning back of shrub branches may be needed depending on extent of growth prior to works commencing.</p>	
	Ibid	Ibid	2.9.61	<p>“In addition, a precautionary method of working will be adopted through a commitment (B66) in Application Document 7.5.3.2 CEMP Appendix B Register of Environmental Actions and Commitments (REAC) [APP-341]. It will be as follows: a) pre-construction</p>	<p>So there will be no surveys until they are approved to start work even though some of the species are Schedule 5 protected and still no mention of reptiles or bats.</p>

				<p>botanical survey will be undertaken to map vegetation stands of particular significance to protect, such as orchids or dense stands of dock or wild carrot (the larval foodplants of the two rarest invertebrates on site). b) An access route will subsequently be marked out which avoids these stands, along with dense stands of other vegetation. c) A suitable qualified ecologist will be on site to supervise and guide the marking out of the access route. Due to the nature of the site with large areas of unvegetated hardstanding, supplemented by the precautionary method of working identified above, no habitat loss will arise</p>	
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				within the former hoverport.	
	Ibid	Ibid	2.9.62	<p>“Elsewhere there would be temporary (though not necessarily short-term) habitat loss to facilitate construction. While the construction compounds (K01-K06) are all situated in arable fields with little botanical interest, the haul routes and buried cable route would need to cut through several sections of dense scrub, woodland belt (both semi-natural and broadleaved plantation) and hedgerow either side of the A256 and traverse a series of field ditches to the site of the proposed Minster Converter Station and Substation. The cable route would traverse three ditches (see</p>	<p>The compounds are still not clear and the final sentence shows how little importance is given to new habitat creation – since the plantation planting along the A256 is only 10 years old – but will not be allowed to mature. Refer back to paragraph 2.9.216 of 6.2.3.2 (C) Part 3 Kent Chapter 2 Ecology and Biodiversity (Tracked) above to see how little importance is given to habitat creation.</p>

				<p>Application Document 6.3.1.4.A Appendix 1.4.A Crossings Schedules), but the various haul road elements would traverse ditches in 10 locations north of the River Stour and a further eight locations south of the River Stour. <b>There would also be several utilities diversions that would involve some removal of approximately 0.1 ha of broadleaved plantation east of the A256, where a small area of immature plantation would need temporary removal, created in approximately 2016 when the road was expanded</b></p>	
	Ibid	Ibid	2.9.112	<p>“The reptile population on site, including the exceptional</p>	<p>The earlier versions of this document and this one have still failed to identify that the Hoverport is an important site for reptiles and it has not been surveyed</p>

				population of slow worm, is concentrated west of the railway line around Abbey Farm Wetlands and the grazing marsh south of the River Stour	
	Ibid	Ibid	2.9.119	Reptiles. Habitat Loss.	Reptiles are still ignored on the Hoverport
	Ibid	Ibid	2.9.173	<p>“There is a permanent access route off Sandwich Road and into the saltmarsh through the former hoverport site. However, this is for inspection and maintenance via light vehicles and a few qualified personnel with very minor access needs at a regular interval, and involves using the existing track and hardstanding to access the saltmarsh area.</p>	<p>This contradicts other documentation (including within this document) about the use of the access route for construction traffic, which will not be light vehicles.</p> <p><b>See.2.9.60 to 2.9.63 for example</b></p>
	Ibid	Ibid	2.9.210	<b>Habitat Loss</b> “ There is a proposed permanent access route into the	Is it permanent already or is it proposed? They seem unsure in the same document.

				<p>saltmarsh at Pegwell Bay off Sandwich Road and through the former hoverport site.</p> <p><b>The hoverport site is known to support rare invertebrates, including fiery clearwing moth and Sussex emerald moth, both of which are legally protected under Schedule 5 of the Wildlife &amp; Countryside Act 1981 (as amended). It also contains habitat suitable for reptiles and supports populations of man orchid and lizard orchid.</b> However, this route is for inspection and maintenance via light vehicles and a few qualified personnel with very minor access needs at a regular interval. Access will use the existing track and hardstanding to reach</p>	<p>The species mentioned have not been surveyed for and as shown above the plant life of the wider Pegwell Bay was ignored.</p>
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				the saltmarsh and as such <b>there will be no habitat loss.</b> "	
	<b>Change Request documentation arrived</b>	<b>Drip fed from 21 November 2025 onward</b>			
<a href="#">REP1-122</a>	9.49 Seals and Airborne Sound Disturbance Technical Note	21 Nov 2025	1.2.1	<b>"The previous A-weighted modelling provided at Application</b> assessed the worst case scenario of the operation of four tracked excavators and a vibratory piling rig in Pegwell Bay operating simultaneously, using a simple point-to-point calculation over a distance of 1.063 km <sup>1</sup> . Sound calculations were used to assess the distance from the excavators and piling rig at which TTS and PTS would be met	This is the first document where we have seen air-borne noise modelled for seals, despite their contention that A weighted modelling was provided at Application. We can find no reference to a document for airborne sound disturbance for seals.
	Ibid	Ibid	1.3.6.	"drilling by vibratory piling rig continuously for 12-hour shifts, using one piling rig	They finally clarify the plant that will be needed for drilling.

				<p>and four tracked excavators located at the 'worst-case' point on the HDD exit boundary; ● installation of anchor points – four anchors, each requiring one excavator to operate for one hour, and each requiring four excavator trips between the anchor and the barge; and ● movement of vehicles across the intertidal area of Pegwell Bay, assuming 36 twoway movements of vehicles at 5 miles per hour per each 12-hour day</p>	
	Ibid	Ibid	Table 1.2		The sound levels are not assessed cumulatively and are underestimated for Permanent and Temporary damage to Pinipeds
	Ibid	Ibid	1.4.2	<p>“Although injury effects from project activities can be excluded, the primary concern relates to potential disturbance of hauled-out seals.</p>	<p>It’s a bit late for them to have realised that construction work in Pegwell Bay can lead to injurious effects and that “no quantitative criteria for assessing disturbance is available” The only way to ensure no disturbance is to choose a less sensitive landfall location - one of those initially chosen along the North Kent</p>



				Such disturbance may involve interruption of normal feeding or resting behaviours, or displacement from the haul-out site. However, there are currently no quantitative criteria for assessing disturbance in marine mammals, including seals; consequently, no modelled distances can be provided for predicting the occurrence of such effects.”	Coast - although more costly would be less environmentally damaging.
	Ibid	Ibid	1.6.1	“Underwater noise modelling has shown that the potential for TTS and PTS effects in seals is not likely as thresholds are met only within 13 m of construction activities and the seal haul out location will be at least 880 m away”	<p>The conclusion is not reliable as the seals clearly swim beneath the surface and then surface and may be near to the drilling rigs without the construction team being aware of it. Are they going to stop activity as soon as a seal is spotted? We think that highly unlikely.</p> <p>Choosing the Pegwell Bay location in preference to the North Kent locations (or indeed others that may be preferable still - such as coming into Dover or Dungeness, closer to Sellindge) will inevitably cause disturbance to the seal colony. This is the only location that has a seal</p>

					colony and choosing this location above others for the landfall is ludicrous.
<a href="#">CR1-056</a>	9.76.5.1 Change Request: Appendix A Saltmarsh Technical Note	28 Nov 2025	Page 82		<p>Incredible that it was only at this late stage that the value of saltmarsh was worthy of any sort of investigation. Kenneth Pye was commissioned to write the report for NG.</p> <p>This is the first time we see (at page 82 of this document) the proposed route for plant using the Hoverport to access the Intertidal areas), which is driving the need to include more of the Hoverport apron in the DOL.</p>
<a href="#">REP1-002</a> (ExA error on superseded document) CR1-0007 which is suffolk	2.5.2 (B) Works Plans - Kent (Version 2, change request)	Ibid	Page 6		We finally see that the temporary compound is definitely Work Number 8 - but it has now lost its K number, which we believe is K06. It is inconceivable that all the heavy plant will be moved from this location to the drilling and trenching site each day. We do not believe that NG will not use the Hoverport as a permanent compound.
<a href="#">CR1-011</a>	2.7 (B) Access, Rights of Way and Public Rights of Navigation Plans (Version 2, change request)	Ibid	Sheet 5		Even at this late stage it is still not clear from the plan on sheet 5 how the cycle paths will be rerouted. This will also affect those who regularly access the Hoverport for leisure
<a href="#">CR1-059</a>	9.76.5.4 Change Request Appendix D Tree Protection	28 Nov			This file failed to open correctly and the references for the trees marked for attention could not be read. There were no indications of changes from previous versions making this file impossible to use. This is also important in the

	Plans Kent Onshore Scheme				context of the Hoverport as we cannot ascertain the planned impact for vegetation on and leading to the Hoverport.
<a href="#">CR1-059</a>	9.76.5.4 Change Request Appendix D Tree Protection Plans Kent Onshore Scheme	Ibid			Likewise, 4 attempts to open the file failed and the detail to accompany 9.76.5.4 could not be accessed. THIS IS JUST NOT ACCEPTABLE.
<a href="#">REP3-078</a>	Ibid	Ibid	GG24	“ Local authorities and the Environment Agency will be informed of any large scale incidents under the Incident Response Plan. Smaller scale issues will be recorded in a register that will be made available to local authorities and the Environment Agency for review on request.	All pollution events could be catastrophic for the habitats along this development. It is not acceptable that the NG and Contractor will decide what pollution level is acceptable and notifiable. ALL pollution incidents should be notified to the EA and Local Authority - they should not have to request information about an incident that they will clearly not know about
	Ibid	Ibid	B01	“Should protected species be identified during construction that require a licence, works in that location will be stopped, when safe to do so, until an	How will individual contractors know when protected species are encountered? We need detail of their training and monitoring, both for species identification and for attitude management.

				appropriate licence is in place.	
	Ibid	ibid	B59	<p>“In relation to trenchless landfall works at both Suffolk and Kent, the contractor(s) will: -</p> <ul style="list-style-type: none"> <li>Notify NE of changes to landfall HDD depth or any changes to the location of landfall exit pit -</li> <li>Prepare a HDD landfall Method Statement and Drilling Fluid Management Plan which are to be shared for information only with NE. Undertake HDD landfall hydrofracture modelling which is to be shared for information only with NE when completed</li> </ul>	<p>We are wondering why they are notifying Natural England (NE). NG, however, should be directing the contractor of what is required, rather than waiting post the grant of DCO to wait for the contractor to tell them. Surely they have procedures/policy for this in place already? If not, why not?</p> <p><b>See our separate paper on the likelihood of Frac-Out.</b></p>
	Ibid	ibid	B64	<p>“Where there are existing ponds (defined as permanent standing water other than ditches) within the Order Limits, it is</p>	<p>We would like confirmation (and cannot find it anywhere) that the ‘lagoon’ at Pegwell Bay will remain intact and will not be damaged by construction activities.</p>

				confirmed that these will not be removed as part of the works. Should new ponds be created prior to construction, these could potentially be removed.	
	Ibid	Ibid	GH10	<p>“The provision of a drilling fluid management plan, that includes drilling fluid breakout mitigation measures breakout plan, where horizontal directional drilling is proposed., The plan will be developed by the contractor and included within the Offshore and Onshore CEMPs. All relevant permits will be obtained or exemption/exclusions registered by the Main Works Contractor(s) for the use of drilling fluids / additives, as applicable.</p>	As per our comment on B59 - it seems that NG are waiting for the contractor to provide guidance rather than directing what is required for protecting the environment.
	Ibid	Ibid	B66	<p>“To ensure ecological interest features of</p>	There is no detail of how this is to be managed on a day to day basis. How will the route be

				<p>the former hoverport are not affected during construction, the following approach will be taken: a) pre-construction botanical survey will be undertaken to map vegetation stands of particular significance to protect, such as orchids or dense stands of dock or wild carrot (the larval floodplants of the two rarest vertebrates on site). b) An access route will subsequently be marked out which avoids these stands, along with dense stands of other vegetation. c) A suitable qualified ecologist will be on site to supervise and guide the marking out of the access route.</p>	<p>marked? For example - if there are to be widely spaced traffic cones to mark the route, there will be no reason for them not to be easily moved and contractors driving wherever they like as the quickest route. Will there be someone responsible for traffic management at the Hoverport and how will they report transgressions? This also feeds into training that we alluded to in B01</p>
	Ibid	ibid	B67	<p>"To ensure there will be no vehicular or</p>	<p>This is to be welcomed if the Sec of State does press ahead with this contrary to sense</p>

				pedestrian access across the saltmarsh, access and egress of vehicles to the mudflats will be via the former hoverport with a buffer between the defined access route and the seaward (distal) limit of the saltmarsh. The locations and widths of access routes across the mudflats will be defined post consent and will be informed by a pre-construction saltmarsh habitat survey.	
	Ibid	Ibid	B68	““Preparation of a Pegwell Bay Landfall Construction Method Statement covering marine cable pull in and cable burial.	<p>It is mystifying that even now, the cable pull in and burial does not appear to be ready for scrutiny. A cynical observer might think that the lack of and late detail provided is a tactic to ensure that members of the public are not in a position to oppose the plans.</p> <p>In addition, it is clear from <b>9.13 (B) Pegwell Bay Construction Method Technical Note (Tracked)</b> that pull in and cable burial is not a final agreed solution as per para 2.4.1 where it appears that there is a degree of uncertainty</p>

					and the onus is on the contractor to decide how duct installation will be carried out.
	Ibid	Ibid	B69	“Trenchless crossing exit pits in Pegwell Bay will be at least 105 m seaward from the edge of the saltmarsh. The temporary working area will be located at a minimum distance of 50 m from the edge of the saltmarsh.	Where are the maps that show the temporary working area and how this will be used?
	Ibid	Ibid	B70	“The final location and width of access routes across the mudflats will be determined preconstruction and will be informed by a preconstruction intertidal habitat survey which will be completed prior to commencement of construction works in the mudflats to ensure the route avoids any areas of seaward encroaching saltmarsh.	This is to be welcomed if the Sec of State does press ahead with this contrary to sense
	Ibid	Ibid	W30	“In order not to impact flood levels by	Ibid



				means of displacement or changing flow paths, at the Kent Landfall, cofferdams (which are temporary) will not be located within 16 m of the River Stour (tidal element) or the coastal flood defences. Therefore a FRAP will not be required.	
	Ibid	Ibid	BE05	<p>“Where benthic habitats of principal importance (qualifying as annex 1 or NERC) are identified during pre-construction surveys (engineering surveys and UXO) and there is potential for an impact on these habitats, the Applicant will prepare a Benthic Mitigation Plan, in consultation with the MMO and SNCBs.</p>	<p>An outline of Benthic Mitigation Plan must be prepared prior to the ExA’s final report and available for scrutiny by members of the public. It is not sufficient to say this will be presented later. Please refer also to our separate paper about the important BE at Pegwell Bay.</p>

	Ibid	Ibid	BE06	<p>“Where benthic habitats of principal importance are identified (qualifying as annex 1 or NERC) during pre-construction surveys and mitigation is required to avoid or reduce impacts on these habitats, an In-Principle Monitoring Plan (IPMP) will be prepared in consultation with the MMO and SNCBs to verify the accuracy of predicted residual impacts on these habitats.</p>	<p>Please excuse the cynicism - but it appears the actions proposed are to ensure that there <b>IS NO accuracy</b> of predicted residual impacts and then it all miraculously goes away.</p>
	Ibid	Ibid	MA15	<p>“As a designated area, the Goodwin Sands Marine Conservation Zone (MCZ), off the Kent coast will not have aggregate collected from within the MCZ for the purposes of this scheme.</p>	<p>Should this scheme go ahead we are delighted to see that the Goodwin Sands will not be used for aggregate collection. But are concerned that aggregate and associated HGVs will still be brought through Ramsgate harbour</p>
<a href="#">REP2-029</a>	9.35.4 Applicant's Comments on	Ibid	5.13.9. Construction hours	<p>““The Applicant requires the necessary flexibility to</p>	<p>We have not commented on NGs response to TDC’s questions - except to add that in respect of construction hours the response from NG is</p>

	Local Impact Report from Thanet District Council			<p>allow contractors to programme and phase their works, and to accommodate unforeseen construction phase issues without elements of the project being pushed onto the critical path. It is also important that construction activities that are less likely to affect communities, for example works within the superstructure of a converter station building, are not onerously restricted.</p> <p><b>The Applicant is therefore not proposing to amend the working hours as per TDC's request"</b></p>	<p>inconsistent. In their response to TDC they state they will not change their working hours. Please note that <b>6.2.1.4(D) para 4.6.165</b> lists 4 x 20t excavators will be required emitting 99 dB(A) each</p> <p>Please also note that in <b>9.13 (B)</b> HDD will be continuous work for 5 months 24 hours a day (para 6.1.2) and this will include VibroPiling - that emits decibel levels of 85 - 95 typically and that this is above the level that is injurious to health for both humans, birds and pinipeds and that disturbance to Lapwing (and Golden Plover therefore) occurs at a decibel level of 50 to 60 to disturb and take flight and 72 to leave entirely <b>(see Cutts et al. (2008, 2009, 2013))</b></p>
			5.13.12	<p>"The Applicant is working to understand local and regional aspirations and priorities in relation to community benefits. The</p>	<p>Local communities have seen no evidence that NG has reached out to anyone for community benefit if this project was to go ahead. Indeed our MP, Polly Billington, made it clear to the Head of Clean Energy Mission in a recent Select Committee that the applicant is not proposing any benefit for locally impacted residents.</p>

				<p>Applicant will work with stakeholders and local communities as the Proposed Project progresses to further inform this The Applicant supports the delivery of community benefits associated with transmission infrastructure, and already has a number of established programmes which deliver this. For example, it operates a community grant programme which is available to nearby charities and not for profit organisations, when projects are in construction.</p>	
	Ibid	ibid	6.1.1.Negative or neutral impacts	<p>“The Applicant does not accept that all the impacts of the Proposed Project will be negative or neutral at the local level as set out in Section 7 of Application Document 7.1</p>	<p>TDC found the project to be injurious and negative overall. We also find their response to this comment from TDC to be disingenuous as they have said in their own documentation that there will be negligible employment benefit. See next point re AS-058</p>

				Planning Statement [AS-057] where the local positive impacts of the Proposed Project for Kent include ecological enhancements and employment generation during the construction period.	
<a href="#">AS-058</a>	Ibid	Ibid	4.6.165	Pits would be excavated, and potentially a small cofferdam would be installed either before or immediately after punch out of the pilot HDD to contain drilling fluids (four punch outs in total) as a reasonable worst case scenario. The equipment would include up to <b>four small excavators (15-20 t)</b> , two tractors, hovercraft and ancillary equipment such as drilling pipes, pumps and generators. Excavators would remain within a	<p>Although this document is not part of the CR set - it is pertinent to refer back to it - since this paragraph indicates that Hovercraft will be routinely used and will be contributing to combined noise of the work and bird disturbance.</p> <p>A 20t excavator is not small and there will be 4 of them generating 99db each - so a combined total of 396 dB(A). The applicant has also confirmed in REP3-069 in response to an ExA query that they 'may' need to use an excavator up to 40 t which generates over 105dB(A). See our attached table which calculates the combined weight and length of time equipment will be using the hoverport for access to the mudflats using the <b>Pegwell Bay Construction Technical Note</b> as our source reference.</p>

				<p>maximum area of 120 m x 180 m around the exit pits. As the exits are in the upper intertidal area, access would be via the corridor from the former hoverport rather than transportation by sea at the top of the tide. Depending on ground conditions, either excavators would tow sledges of equipment or tractors would tow trailers with equipment to the exit. The noisiest equipment during these activities is expected to be the excavators (Application Document 6.3.1.4.B Appendix 1.4B Construction Plant Schedule). Pumps and generators would be in super-silenced units, if full high pressure mud pumps are required, they</p>	
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				typically generate noise of 77dB at 2.5 m distance and generators 71 dB at 1.0 m distance. <b>A 20 t excavator typically generates 99 dB(A)</b>	
	7.5.7.2 (B) Outline Landscape and Ecological Management Plan- Kent (Tracked)	Produced July 25 not loaded until October 25			Coffer dam methodology was not described for Pegwell Bay until Pegwell Bay Construction Technical Note, after the CR1 documents were issued. It is notable that the management/reinstatement of mudflats around and within the coffer dams is not taken into consideration in this document although it must have been known about.
<a href="#">REP2-011</a>	9.13 (B) Pegwell Bay Construction Method Technical Note (Tracked)	11 Dec 25	2.3 And 2.3.2	“ground conditions indicate 6 m of sediments overlying chalk at exit, so vibropiles <b>may be required</b> if pilling is deemed necessary (no percussive piling will take place in construction of a cofferdam/s).	There still appears to be uncertainty about construction methods - and we are mystified as to why this is still the case after 4 years’ work.
	Ibid	Ibid	2.4.1	“The cofferdams and HDD exit pits will be located within a designated working area of 120 m by 180 m (21,600 m2). All construction plant	Where will the designated work area be? - since temporary compounds K05 and K06 are outside of this range. We have never had any indication of where the ‘foreshore’ compound will be (see comments on <a href="#">REP1-002</a> above)

				and vehicles associated with the trenchless crossing works will be required to remain within this working area at all times.	
	Ibid	Ibid	Also 2.41	“The exception to this would be <b>if the HDD contractor’s selected methodology for duct installation is to use a pulled method</b> (where the ducts are brought in by sea and installed in a marine to onshore direction (from the HDD exit pits to the temporary onshore drilling compound) <b>as opposed to a pushed method</b> (ducts are installed in segments that a push through the HDD bore in an onshore to offshore direction).	Why does NG not specify how the contractor should do this in order to minimise ecological damage and noise?
	Ibid	Ibid	4.27	“While it is <b>anticipated</b> the rollers will be on gravity bases, it may	Vibropiling is the preferred method for cofferdam construction in the industry - so to say that this is worst case is disingenuous and silent piling is extremely unlikely and as



				<p>be that piled bases are required in any tidal channels as they have a tendency to be undermined by scour and lose stability. The preference would be for <b>'silent piling'</b> techniques as far as practicable, unless not possible due to the prevailing conditions. However, the assessed <b>worst case is based on the installation of piled bases using a vibropiling method of installation.</b></p>	<p>mentioned before the noise level for cetaceans, pinnipeds and birds in this sensitive receptor is unacceptable.</p>
			4.4	<p>"Once all works at the landfall are completed (including cable pull in), the temporary drilling compound / landfall works compound and access tracks will be removed.</p>	<p>The temporary drilling compound has never been described or shown on a plan - but is clearly in their plans somewhere.</p>
			5.2.2	<p>"For the purpose of assessing potential impact associated with construction</p>	<p>It is inconceivable that negative impacts are being described at the lower estimate. 40 movements a day compared to 4 is a colossal difference in disturbance and noise in this</p>

				access, it has been assumed that for all construction activities occurring in the intertidal area, construction plant and vehicles would use the construction access, from the hoverport, up to <b>four</b> times a day (depending on tides). However, there may be a requirement for up to <b>40</b> movements per day at peak times of certain vehicles involved in the transportation of equipment and personnel across the mudflats.	sensitive receptor. The applicant must provide more detailed work plans - this broad range is unacceptable.
			5.2.3.	“[ ] and HGVs and transferred to trailers for transport onto the intertidal mudflats via the former hoverport	It is not clear to which compound the equipment will be delivered is this K06? No specific use for K06 has been described
			Appendix A	Describes Direct Pipe and MicroTunnelling	
	Ibid	Ibid	3.2.1	“Delivery of the trenchless crossing (HDD) drill rig to the	There is a reference to a temporary construction compound - but no description or plan of where this would be.

				<p><b>onshore temporary drilling compound</b> is expected to take two days and will involve up to 20 Heavy Goods Vehicle (HGV) loads. A 150 t - <b>200 t crane</b> may also be required for positioning equipment during those two days.</p>	<p>This is especially important because of the weight of the crane. None of the roads around Pegwell Bay are recorded as able to take HGV loads greater than 7.5t</p>
<a href="#">CR1-069</a>	9.76.3 (B) Change Request Consultation Report (Clean)	Ibid	Table 3.1	<p>“Misconceptions about the proposals for the hoverport, with many consultees incorrectly referring to a construction compound being built at this location</p>	<p>This has still not been clarified - since their own documents refer to a temporary compound on the foreshore as described above - and is still not clear</p>
	Ibid	Ibid	Ibid Page 25	<p>“ Various searches regarding the Hoverport have identified some ‘anecdotal’ evidence that the Hoverport was constructed on Colliery Spoil – but at the current time National Grid has not seen any data or information that confirms this. The risk and impact</p>	<p>Please refer to <a href="https://www.kentonline.co.uk/kent/news/coal-waste-pollution-threat-to-p-a21696/">“https://www.kentonline.co.uk/kent/news/coal-waste-pollution-threat-to-p-a21696/</a> accessed again 18 Jan 2026, which clearly details that Thanet District Council at the time had undertaken environmental assessments and decisions about the use of the Hoverport were made with this information in mind. <b>It is not ‘anecdotal’ that the hoverport was constructed on colliery spoil - it was widely documented and reported on at the time of construction (see attached news article). Any more use of the Hoverport, especially by all</b></p>

				<p>assessments that National Grid has undertaken for the DCO application recognise the potential for a level of contamination, and in the context that the proposed use for the Hoverport is solely for access. National Grid's conclusion is that significant effects in relation to geology and hydrogeology (from existing contamination) are unlikely, and any potential effect is regarded to be minor and not significant.</p>	<p><b>the heavy machinery in the list will inevitably cause it to deteriorate even further.</b></p> <p>Their own documentation from the surveys describe the higher than background levels of arsenic and other heavy metals in Pegwell Bay.. We also have photographic evidence (supplied) of the breaking up of the concrete and the spoil underneath is clearly visible. Allowing plants to recolonise this space is the safest way for the land to be stabilised and effectively cleanse it.</p>
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	Total vehicles (max): HDD enabling works, drilling and ducting 3 months early 2027	Cumulative weight in tonnes (est.) (3 months)	Total vehicles (max): Landfall Cable Pull-In 5 months Summer and Autumn 2027	Cumulative weight in tonnes (est.) (5 months)	Total vehicles (max): Cable Burial 6 months 2029	Cumulative weight in tonnes (est.) (6 months)	Cumulative vehicle weight over entire construction period (27-29)
Vibropiling rig	1	20	1	20	0	0	40
Excavators*	4	100	4	100	4	100	300
Tractors	2	14	2	14	2	14	42
Trailers	2	3	2	3	2	3	9
4WD vehicles	5	8	5	8	5	8	24
Bulldozer	0	0	1	10	1	10	20
Telehandlers	2	16	2	16	2	16	48
Argocat	3	1	3	1	3	1	3
Mass flow excavator	0	0	1	8	0	0	8
Hovercraft	3	2	3	2	3	2	6
<b>Totals</b>	<b>22</b>	<b>163</b>	<b>24</b>	<b>181</b>	<b>22</b>	<b>153</b>	<b>500</b>
	<b>Total vehicles</b>	<b>68</b>					
	<b>Total weight (tonnes)</b>	<b>500</b>					

\* NG have responded to ExA query "The Applicant can confirm that 15 tonne (t) to 20t excavators are the size of excavator that are expected to be used for the majority of works at the HDD exit pits, however larger (40t) excavators may be required."

We have updated our figures accordingly and assumed 3x 20t; 1x 40t for each phase

Image © Reach PLC. Image created courtesy of THE BRITISH LIBRARY BOARD.

# HOVER TRIP FOR TECHNICAL PRESS

HOW the ugly slag heaps of Britain are becoming hoverports, motorways and airports was demonstrated yesterday when the technical Press visited Peggwell Bay.

Their tour of the Kamegate hoverport and its opposite number in Calais was organised by the National Coal Board and Cementation Construction Ltd., with the help of Hoverloyd.

Cementation Construction Ltd., built the port on a base of 300,000 tons of NCB colliery spoil heap shale — first major construction project to be completed using this method for bulk fill.

Enormous success of this application has opened up to civil engineers access to vast quantities of low-cost material that is widely available throughout the country.

Using colliery shale is not only a boon to the construction industry, but an effective means of landscape restoration: as more projects get underway so they eat into the great mine casts that scar the countryside.

As well as inspecting the results of shale filling, the party of 70 were then taken to Calais aboard Swift.

They returned to the Viking Ship Motel for a buffet lunch, a preview of the NCB/Cementation film 'Hoverport' and a questions-and-answers session before going back to London.

# The Likelihood of Frac Out in Horizontal Directional Drilling (HDD) for HVDC cable installation

## 1. Introduction

The use of trenchless HDD at Pegwell Bay is welcomed in principle as a means of avoiding direct open cut impacts to saltmarsh and mudflat habitats, although we would still argue that Pegwell Bay is the wrong choice of location. Inadvertent drilling fluid return, which, given the unconsolidated superficial deposits and constrained depth of cover beneath the intertidal region, retains a low to moderate likelihood of occurrence even with best practice controls. Because Pegwell Bay is a NNR, SSSI, SPA, SAC and Ramsar site supporting internationally important assemblages of wetland birds and other fauna, **any** frac out has the potential for significant ecological effects through smothering of intertidal habitats and disturbance during response operations.

There is no industry wide “average rate” of frac out for HVDC/HDD drilling, because frac out frequency varies enormously by geology, bore length, drilling pressures, and the quality of geotechnical investigation. Published sources describe how frac outs occur and how they are modelled, but none provide a universal percentage or rate.

We understand that the likelihood depends on

- Soil type (**soft clays, silts, sands**, fractured geology increase risk)
- Depth of cover
- Drilling fluid pressure vs. confining pressure (modelled using the Delft/cavity expansion equation) see [help.technicaltoolboxes.com](http://help.technicaltoolboxes.com)
- Bore length and curvature
- **Quality of mud management and monitoring**
- **Accuracy of geotechnical data**

Because these variables differ dramatically between projects, no dataset supports a single “average frac out rate” across the HVDC/HDD industry. However, what the literature does say is as follows.

### 1.1. Frac out is a **known, common risk**

Industry guidance emphasises that inadvertent returns are “often a significant issue” in HDD installations [help.technicaltoolboxes.com](http://help.technicaltoolboxes.com).

### 1.2. Frac outs occur most frequently:

- During pilot bores or early reaming passes
- **In soft or fractured ground**
- When fluid pressure exceeds soil confining pressure

### 1.3. Hydrofracture modelling Designers calculate the maximum allowable drilling fluid pressure using the Delft (cavity expansion) equation to keep pressure below the soil’s confining strength.

### 1.4. Empirical data exists but is not aggregated

One study analysed 50+ HDD projects with recorded annular pressure data to identify actual hydrofracture events, but did not publish a generalised frac out rate across those projects see CCI Solutions.

## 2. What This Means for HVDC in the SeaLink project

For HVDC cable landfalls and long HDD crossings like this:

- Frac out likelihood must be assessed per bore, not assumed from averages.
- Geotechnical variability (e.g., Thanet Sands, London Clay, alluvium) is the dominant factor.
- Mitigation plans (pressure monitoring, drilling fluid management, contingency response) are mandatory.

Evaluating the likelihood of Frac-Out at Pegwell – therefore depends on these variables, many of which, of course, we are not party to, but we can make educated estimates based on the data available as follows.

## 3. Likelihood Estimates

- 3.1. What follows is an inferred, qualitative–quantitative judgement, not a figure taken from the DCO documents, as that is all we have. But this is an informed opinion and the project should surely take the precautionary approach.
- 3.2. Inherent risk (before mitigation):
  - 3.2.1. Unconsolidated superficial deposits and shallow cover under mudflats → moderate to high inherent likelihood of at least one inadvertent return over the full HDD programme, if drilling pressures were not tightly controlled.
- 3.3. Mitigation actually proposed:
  - 3.3.1. Design of HDD profile and maximum allowable drilling fluid pressures;
  - 3.3.2. Real time pressure monitoring and drilling fluid management;
  - 3.3.3. Cofferdam/working area to contain onshore returns; please not also that there will be 4 cofferdams – increasing the risk
- 3.4. Frac out contingency procedures described in the DCO documentation supplied.

## 4. Ecological context at Pegwell Bay

- 4.1. Pegwell Bay (including the hoverport area and mudflats) is:
  - National Nature Reserve, SSSI, SPA, SAC and Ramsar site, designated for its importance to wetland birds and other wildlife.
  - Used by large numbers of waders, wildfowl and terns, plus seals and other protected species; it's one of the best wetland bird areas in Kent.
- 4.2. So **any** HDD frac out **isn't just a construction nuisance—it's a direct impact pathway to internationally important intertidal habitats and birds.**

## 5. Impact pathway from frac out to receptors

- 5.1. If a frac out occurs during the Sea Link HDD drilling fluid (typically bentonite based mud) escapes to the seabed/mudflat surface.
- 5.2. **Primary effects:**
  - o Smothering of mudflat invertebrates (key prey for SPA/Ramsar bird features).
  - o Short term turbidity and surface contamination, potentially affecting feeding



efficiency of waders and wildfowl.

- o Disturbance from emergency response (access, clean up, plant) in highly sensitive areas.

5.3. **Toxicity:** bentonite itself is generally considered low toxicity; the main concern is physical smothering and disturbance, although the effects on benthic organisms are not well researched.

5.4. Given the site's designations and functional links to Minster Marshes, even a small, localised frac out can be ecologically significant if it coincides with peak bird use or sensitive seasons.

## 6. Likelihood × consequence for Sea Link HDD at Pegwell

6.1. Pulling together the earlier likelihood estimate with receptor sensitivity:

6.1.1. **Event Definition:** at least one inadvertent return (frac out) occurring anywhere along the HDD during pilot or reaming

6.1.2. **Inherent likelihood (pre mitigation):** “Likely” (say, on the order of >50% chance over the whole HDD campaign).

6.1.3. **Residual likelihood (with good implementation of proposed controls):** “Unlikely but not rare”—I’d characterise that as something like a 5–20% chance of at least one detectable frac out over the full HDD works, with most such events expected to be small volume and short lived

### 6.2. Conclusion

6.2.1. These percentages are reasoned engineering estimates, not figures stated in the DCO documents. But even if you accept a low–moderate residual likelihood, **the consequence remains high**, which keeps overall risk in the “must be actively managed” category, not something that can be hand waved away.

6.2.2. Given the combination of ***non negligible residual likelihood and very high consequence***, the Examining Authority should only accept the HDD solution if these controls are fully specified, enforceable by requirement, agreed with Natural England and the conservation NGOs. Please treat this matter with the serious concern for consequences that this deserves.