# LOCAL IMPACT REPORT

## Sea Link

## Produced by Kent County Council (KCC)

## November 2025

### Introduction

This report has been prepared by Kent County Council (KCC) as a statutory consultee, in accordance with advice and requirements set out in the Planning Act 2008 and Government Guidance - Nationally Significant Infrastructure Projects: Advice for Local Authorities as published 8 August 2024.

The Guidance states that the purpose of a Local Impact Report (LIR) is “to make the Examining Authority aware of the potential impacts of the project based on local knowledge. It is a technical evidence-based assessment of all the impacts”.

The Guidance states “host and neighbouring local authorities are invited to submit a LIR” which includes positive, neutral and negative local impacts.

The Report may “cover any topic the local authority consider is relevant to the impact of the project on their area and the local communities affected”.

This LIR covers areas where KCC has a statutory function or expertise.

In preparing this document, KCC has considered the following local impacts:

- Biodiversity (as Responsible Authority for the Local Nature Recovery Strategy)
- Highways (as Local Highway Authority);
- Sustainable Urban Drainage Systems (as Lead Local Flood Authority);

## Biodiversity

The following is provided by Kent County Council's Ecological Advice Service (KCC EAS) for Local Planning Authorities. It is independent, professional advice and is not a comment/position on the application from the County Council. It is intended to advise the relevant planning officer(s) on the potential ecological impacts of the planning application and if sufficient/appropriate ecological information has been provided. Any additional information, queries or comments on this advice that the applicant or other interested parties may have must be directed in every instance to the planning officer, who will seek input from the EAS where appropriate and necessary.

Firstly, in providing these comments, please note that we have not reviewed the terrestrial or aquatic invertebrate reports. In addition to this, no specific section has been created in this response to the Outline Landscape and Ecological Management Plan but reference to it has been made within the response below:

KCC EAS reviewed the submitted ecological information and advise that they continue to have concerns relating to the breeding bird and wintering bird mitigation area and whether it is appropriate to mitigate the impact for the loss of functionally linked land AND the breeding bird mitigation.

**Reptiles**

Summary:
Across Areas A, C, and D, the proposed development affects habitats supporting three native reptile species, including exceptional populations of slow worms, qualifying these areas for the Key Reptile Site Register. This designation reflects their local conservation importance, and mitigation strategies should be proportionate to this status. While we acknowledge the use of standard mitigation techniques such as two-stage strimming, and the inclusion of reptile exclusion methods within the full detailed LEMP, we remain concerned that:

- The adjacent receptor habitats have not been adequately assessed for suitability and capacity.
- There is a lack of detail on how reptiles will be supported during the interim period before newly created habitats become functional.
- There is no clear commitment to post-construction monitoring or adaptive management.
- The role of ecological supervision during clearance works needs clarification.
- Precautionary measures during construction (e.g. protective fencing) must be secured to prevent harm to reptiles.

To ensure these concerns are addressed and mitigation is enforceable within all reptiles areas, KCC EAS recommend that it is addressed within a detailed CEMP and LEMP.

Detailed Comment:
Reptile surveys have been undertaken in suitable habitats (rough grassland, verges and scrub) across four locations.

Three species of reptiles were recorded during the surveys : common lizards, slow worms, grass snakes.

Three main areas with reptile presence are summarised below :

| Area (as noted in Reptile Report) | Location | Population of Common Lizard | Population of Grass Snake | Population of Slow Worm |
|---|---|---|---|---|
| A | Between River Stour and railway | good | low | exceptional |
| C | Along the hedge/stream where the converter station is to be built | low | low | good |
| D | Adjacent to the railway near construct compound K05 | good | absent | good |

AREA A.
This area supports three reptile species with an exceptional population of slow worms, qualifying it for the Key Reptile Site Register 1, a mechanism designed to promote the safeguard of important reptile sites. A habitat manipulation has been suggested as a mitigation strategy.

KCC EAS acknowledge that the two-stage strimming technique described in paragraph 2.9.115 of the Environmental Statement is an appropriate method for reptile displacement. However, the concern remains that the strategy lacks site-specific detail and does not sufficiently demonstrate how overall impacts will be avoided, particularly for a site qualifying for the Key Reptile Site Register.

To ensure the mitigation is appropriate and effective, KCC EAS request that the following additional information is included within the full detailed LEMP and CEMP, with clear responsibilities, timelines, and enforcement mechanisms :

- Habitat suitability of adjacent areas: a clear assessment of the quality and carrying capacity of the adjacent habitats (e.g. stream corridor, woodland edge, rail corridor scrub) to receive displaced reptiles. This should include vegetation structure and diversity, availability of refugia and basking areas, connectivity to other suitable habitats

- Monitoring and management: details of a post-clearance monitoring programme to assess whether reptiles successfully relocate to adjacent habitats with population decline or growth, management measures if mitigation proves ineffective

- Timing and weather contingencies: clarification on how the timing of strimming (March or September) will be adjusted in response to weather conditions, which can significantly affect reptile activity and displacement success

- Ecological supervision by confirmation of the role and responsibilities of the Ecological Clerk of Works (ECoW) during habitat manipulation, including presence during all clearance activities, authority to stop works if risks to reptiles are identified

AREA C:
Area C supports three native reptile species, qualifying it for inclusion in the Key Reptile Site Register, which indicates the site is of local conservation importance. This status should be reflected in the mitigation strategy.

KCC EAS acknowledges the applicant's clarification that reptiles will be directed toward adjacent habitats, including semi-natural broadleaved woodland and the stream corridor. KCC EAS also accept that a two-stage strimming approach may be more proportionate than trapping and translocation, given the reported population density. KCC EAS are satisfied with the proposal to include the precise method of reptile exclusion within the full detailed Landscape and Ecological Management Plan (LEMP), to be agreed with the relevant planning authorities between the grant of the DCO and commencement of construction.

However, KCC EAS remain concerned about the interim period before newly created habitats become ecologically functional. For a site of local importance with a good slow worm population, it would be expected as a minimum, that:

- Adjacent habitats are enhanced to support all three reptile species in the long term (at present we do not know if these habitats are suitable for the three species).

- A clear timeline and contingency plan is provided to ensure reptiles are not left without viable habitat during the 1–2 year period before habitat creation matures.

- A programme of post-construction monitoring is implemented to assess the effectiveness of the mitigation measures and habitat establishment, and to inform any necessary adaptive management.

KCC EAS recommend that these measures be explicitly included within the full detailed LEMP to ensure ecological continuity and compliance with best practice guidance (e.g. Natural England's standing advice on reptiles and BS 42020: Biodiversity – Code of Practice for Planning and Development).

KCC EAS are also satisfied that the scrub habitat along the Minster Stream is to be retained. However, given the proposed construction of a balancing pond, and converter station, it is anticipated the presence of heavy machinery on site. Therefore, KCC EAS advise that

strong precautionary measures, such as protective fencing, be maintained throughout the construction phase to prevent harm to reptiles and other wildlife. This should clearly appear within the full detailed Construction Environmental Management Plan (CEMP).

*AREA D:*
The area in question supports suitable scrub habitat and is known to host good populations of slow worms and common lizards, both of which are protected under UK wildlife legislation.

KCC EAS note that approximately 600m² of suitable reptile habitat is proposed to be temporarily removed to facilitate the installation of a cable trench and haul road.

While it is acknowledged that the area of habitat loss is relatively small and temporary, it is important to recognise that:

- The habitat will still be directly impacted during construction.
- Reinstatement will take time, and ecological functionality may not be immediately restored.
- The presence of reptiles cannot be ruled out, and precautionary measures are therefore necessary.

KCC EAS advise that this habitat area should be explicitly included within the proposed two-stage reptile habitat manipulation strategy, and this should be clearly set out in the full detailed Construction Environmental Management Plan (CEMP).

Furthermore, KCC EAS expect the applicant to demonstrate that appropriate habitat compensation, even if temporary, is provided to support the continued viability of the local slow worm and common lizard populations during the construction phase. This should include, as a minimum:

- Creation of temporary suitable habitat prior to the commencement of works, allowing time for it to establish and become ecologically functional.

- Enhancement of adjacent habitats to increase their carrying capacity and connectivity.

- Post-construction monitoring to assess habitat recovery and the effectiveness of mitigation measures.

**Breeding Birds**

There are two seasons worth of data (2022-2023 and 2023-2024) and in terms of bird species considered to be potentially breeding onsite, this amounts of 61 and 94 species respectively.

When KCC EAS  previously commented we raised the following concerns in relation to the breeding bird surveys:

- Insufficient land has been proposed for the mitigation requirements for farmland birds. 22 territories for skylarks have been recorded, and it would be anticipated that 22ha of land would be required to create 2 skylark plots per territory and currently only 10ha are proposed for mitigation which is inadequate. The land (including field margins and hedgerows) required for skylark mitigation would also support corn bunting (8), linnet (33), meadow pipit (80), grey partridge (2), yellowhammer (5) and nightingale (1).

- Insufficient information has been provided to assess if the mitigation land currently proposed is appropriate and in a suitable location. No surveys have been carried out on the mitigation land to understand the existing breeding bird population and assess if it has capacity to support an increased breeding bird population.

- No compensation recommended for the loss of foraging habitat for gulls who rely on the site for foraging throughout the breeding season. This could result in reduced breeding success for black-headed gull, great black-backed gull, herring gull, lesser black-backed gull and med gull. These are all Birds of Conservation Concern

- Insufficient information has been provided assessing the impact from noise and light pollution from the operational phase of the development.

Please note in providing KCC's previous comments we are aware that skylark plots are not nest sites. In response the applicant has detailed the following:

> *"We don't believe it is true that you can only accommodate 2 skylark plots per hectare of farmland. The government guidance on skylark plots says 'at least' 2 plots per hectare i.e. this is not a maximum but a minimum (https://www.gov.uk/find-funding-for-land-or-farms/ahw4-skylark-plots); the plots don't provide nest sites, but provide access within fields for foraging, particularly later in the season when the crop becomes tall. We also don't believe the stipulation of 2 plots for each territory lost is based on any formal guidance or calculation and we believe this can be considered more simply; the arable field that is being permanently lost is 12 ha and supports one skylark territory (although six others will be lost temporarily during construction). Therefore, planting spring cereals and delivering skylark plots at a rate of 4 per hectare in winter cereals on a 10 ha field for 40 to 80 years (depending on the lifetime of the converter station) is reasonable mitigation.*
>
> *The measures proposed for the mitigation land will fundamentally change how that land functions for birds. Therefore, a breeding bird survey now would give limited information regarding the extent to which the area can support breeding birds following the changes to farming practices. The development is losing a 12 ha arable field that happens to be suitable for farmland birds but has no restriction on management such that it can be rendered unsuitable at any time. In contrast, the mitigation delivers a 10 ha field that is being managed specifically for farmland birds and being secured in favourable management for the lifetime of the converter station (40-80 years) which is not the case for the mitigation land at present".*

It is the view of KCC EAS that the additional information has not provided any scientific rationale/papers to support the additional information provided. For the seven territories lost

there should be a total of 21 plots created. Two plots per hectare will require 10.5ha of land. This is already a suitable area of land and therefore we do not encourage doubling the number of plots per hectare without any rationale supported by research.

In providing these comments KCC  EAS have reviewed existing research which indicates that fields with two skylark plots per ha can accommodate more nesting skylarks compared with conventional winter-sown wheat management (0.3 territories per ha compared between 0.1 to 0.2 territories per ha). If skylark plots are combined with arable field margins, 0.4 territories per ha could be supported. Available literature indicates that habitat changes within farmland might achieve between 0.2-0.5 territories per ha (five-year set aside land) and 1 territory per ha (fallow land). In addition, Natural England has previously indicated that a ratio of three skylark plots for every territory lost would be acceptable as compensation for development.

KCC EAS highlight that there is no evidence to suggest that increasing the number of plots within a smaller area is beneficial for skylark, 2 per hectare is regarded as the optimum density. Data exists to show that two plots per hectare in winter cereals can boost the number of skylark chicks by 50%. If 20% of winter cereals were managed with 2 skylark plots per hectare then the national decline of skylarks would be halted. There is no information on 4 skylark plots per hectare and therefore this approach is discouraged.

It continues to be KCC EAS's view that breeding bird surveys are required on the proposed functionally linked land to fully understand the baseline and understand what mitigation can be implemented. KCC EAS are supportive that they have securable farmland sites is good but if the mitigation land cannot accommodate increased breeding populations then there is nowhere for the displaced/lost territories to disperse too.

**Wintering Birds**

KCC EAS's previous concerns re impacts to wintering birds are as follows:

> *"The problem is that this [compensation] site does not appear to have been subject to any breeding/wintering bird surveys, so it is not clear whether it has the carrying capacity to support the displaced skylarks/golden plover from the Minster Marshes. The applicant has calculated that ~3.8ha is the minimum area required as FLL compensation, but this 10ha site is being used to mitigate other effects (including loss of skylark breeding territories, with 4 plots being created per 1ha, and loss of non-FLL wintering grounds for other species), all of which raises several questions:*
>
> *a) Is the mitigation site already functionally linked to the SPA/Ramsar?*
> b) *Does it have excess carrying capacity for displaced breeding/non-breeding birds?*
> c) *Will the proposed interventions enhance it for both skylark and golden plover, which have different habitat requirements (as well as other breeding/non-breeding birds affected by the proposals)?"*

Our consideration of the applicant's response is as follows:

AECOM advise that wintering bird surveys of *"the fields"* (presumably the compensation site) have identified *"no significant use of the fields for roosting or foraging as they are currently farmed"*. KCC EAS take this to indicate the site is not Functionally Linked Land (FLL) but would appreciate concrete confirmation. This affects the framework through which the site is viewed.

The argument is made that the 12ha of arable land to be lost to facilitate the development is of inherently low value and a 10ha compensation site *"managed specifically for farmland birds"* over 40-80 years is a net gain for these species. This sounds like a yes, but some doubt is cast by the response to my third point.

Regarding the third bullet point above, AECOM's response *"This is possible"* is not entirely clear, but we appreciate the details which follow as these give me some confidence in the proposed compensation. KCC EAS ask this question because we understand the same field is being used to compensate for impacts to both species. We have also been considering the overall efficacy of the skylark compensation proposals; without confirmation that the compensation site is not FLL we cannot accept the applicant's position.

KCC EAS also raised a concern that open trenching may occur and note the response *"it would not be legally possible for open trenching to be used in this location without a material amendment to the DCO being obtained".* This is noted and it is our view that it should not be an option for the amendment to be obtained.

KCC EAS previously stated: *"Other consultees have queried whether [the compensation site's] location next to a business park and railway (as well as a potential solar farm to the south-west, see DDC 23/01363) is appropriate as this may indicate elevated levels of light/noise pollution*" This has not been responded to.

In conclusion, further clarification is requested as follows:

- Confirmation that the compensation site is not FLL
- Confirmation that the proposed compensation will effectively mitigate impacts to skylark and golden plover
- Consideration of the proximity of the proposed compensation site to a business park (Discovery Park) and a proposed solar farm and any effect this might have on the efficacy of the proposed compensation (via light and noise disturbance which may not fully attenuate before reaching wintering birds)

**Riparian Mammals**

KCC EAS understand that the project is committing to the creation of roughly 6.5 ha of woodland, 5 ha of species-rich neutral grassland, 1 km of native hedgerow planting, 2 ha of balancing pond, and swales along the permanent access road. It is also understood that a series of small shallow riverside scrapes with riparian planting (including some alder and willow) is proposed along the River Stour (approximately 600m2).

Measures to avoid pollution incidents and legally dispose of waste during construction have been proposed. KCC EAS understand that trenches and excavations will not be left open overnight, or a means of escape from the trench/excavation shall be provided.

KCC EAS understand that the haul routes (10m wide including drainage) and buried cable route would need to traverse a series of field ditches to the site of the proposed Minster Converter Station and Substation. It is understood that the haul road will be fenced, but larger mammals such as beavers and otters should be able to pass underneath.

KCC EAS understand that proposals would result in 27 temporary culverts (each 13m in length) for haul routes across ditches. The working area for the high voltage direct current cable would be 20m wide at ditches, but 40m otherwise. There are also proposals for 16 *temporary* outfalls (2m diameter) into ditches to discharge surface water runoff from the haul roads/construction sites.

KCC EAS understand that to mitigate for habitat loss and fragmentation, the proposed culverts will avoid narrowing the channel width and will include a minimum 150mm wide mammal ledge with 600mm headroom as far as possible. It is further understood that the eventual removal of the 27 temporary culverts will occur and gaps will be planted up or left to recolonise naturally. Temporary losses of ditch habitat are expected to take 1-2 years to restore.

Riverbank and in-channel vegetation will be retained where not directly affected by installation works. Where ditches retaining seasonal flows are crossed, culverts in waterbodies will either preserve the natural bed or be box culverts with inverts sunk a minimum of 300 mm below the hard bed of the watercourse and natural / existing bed material placed across the inside of the culvert, to maintain existing channel gradients and habitat, as well as to ensure continued passage for in channel species.

KCC EAS understand that a temporary clear-span bridge is proposed over the River Stour, to be in place approximately 2.5 years. The foundations of the bridge are proposed to use soft-start, non-percussive piling to limit disturbance. The expectation is that bankside vegetation could be retained beneath it. Abutments are proposed 8m back from the bank top, with a soffit height of 4m above mean high water springs.

KCC EAS understand there will be three cable crossings over ditches using open cut trenching. This would involve temporary habitat losses, although it would not be possible to replace any trees lost over the cable route (shrub planting is however possible).

In terms of permanent habitat losses, It is understood that there will be four permanent culverts on ditches for permanent access and seven permanent outfalls. Approximately 365m of ditch is proposed to be lost under the converter station footprint.

The project ecologists indicate that sufficient habitat is proposed for creation to compensate for these losses, both temporary and permanent.

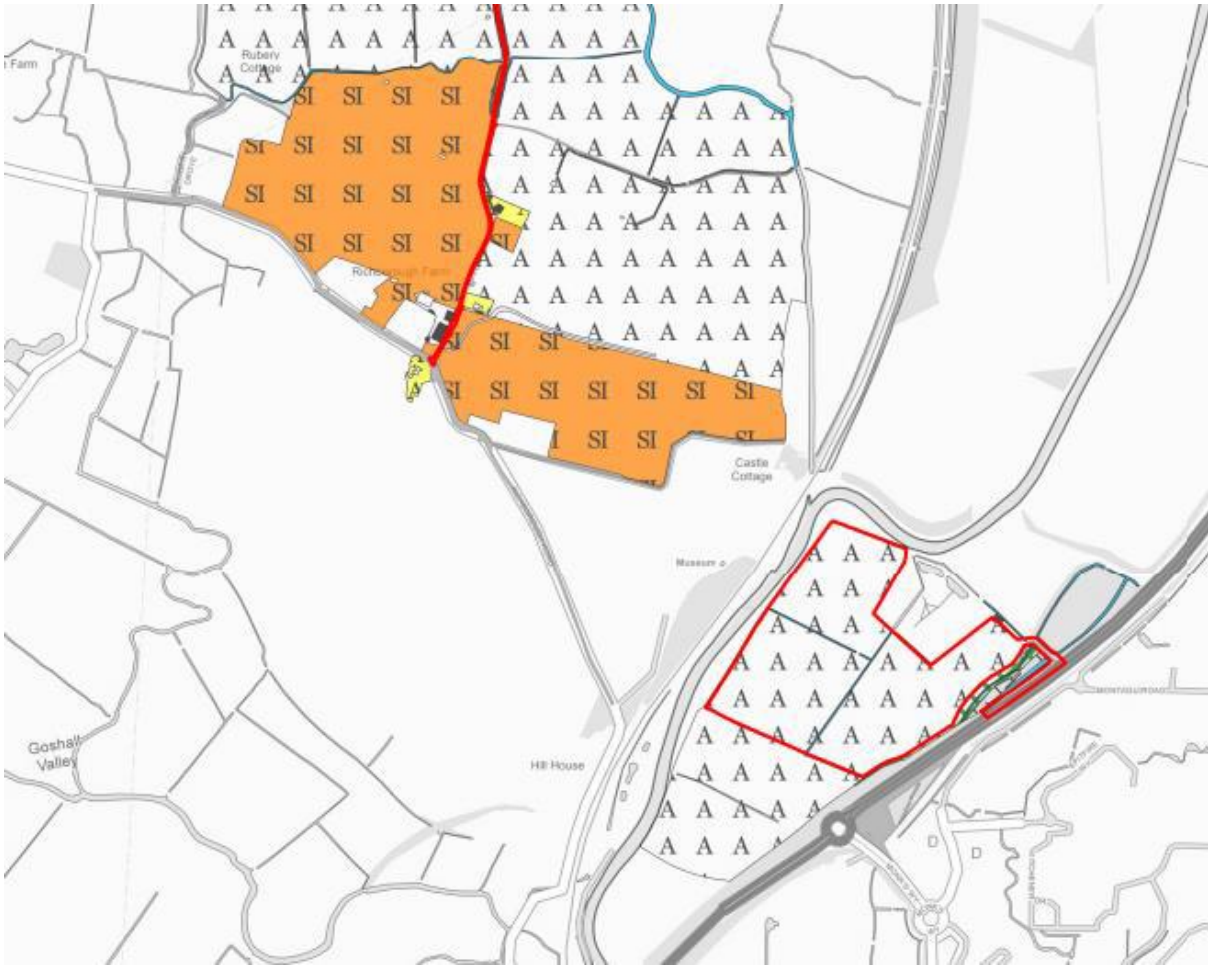
**Water Voles**

*Survey methodology*

KCC EAS understand that two surveys (June 2024 and September 2024) were undertaken for water voles at locations where watercourses are forecast to be crossed or are to be affected by works or are adjacent to the proposed Kent Onshore Scheme Order Limits. We understand that surveys covered 100m either side of crossing points where possible.

When KCC EAS commented previously and advised that it was unclear whether the watercourses shown below were surveyed for riparian mammal presence. Information provided by the applicant has confirmed that only ditches to be impacted by the works were surveyed.

KCC EAS highlighted that it may have been useful to have an increased understanding of how water vole were using the whole site rather than just the ditches to be directly impacted however we accept that no further surveys are needed.




When KCC EAS previously commented it was acknowledged that there was evidence of water vole within the red line boundary. The survey timing was carried out in alignment with the latest survey guidelines (Dean *et al.,* 2016). However, it was noted that the results do not

provide a gauge of relative population size, nor of the recorded locations of American mink. This information has now been provided.

As the project ecologists appear to have accounted for, we would assume water voles to be present in all watercourses with suitable habitat (including suboptimal habitat) given their presence in the landscape, and given the problems identified with gaining access for survey in some locations.

*Mitigation*

Overall, KCC EAS understand a temporary loss of approximately 300m of ditch habitat (on 230m of which water voles have been recorded in the affected ditch) is expected.

In terms of permanent habitat losses, it is understood that there will be four permanent culverts on ditches for permanent access and seven permanent outfalls. This would involve the permanent loss of approximately 30m of ditch habitat where water voles have been recorded in that ditch. Approximately 365m of ditch is proposed to be lost under the converter station footprint, although water voles were not recorded within this footprint. KCC EAS understand that outfalls will be sited to avoid water vole burrows where possible.

The project ecologists have indicated that as water voles could be present along any ditch section to be affected by works (even where not recorded during survey), ecological clerk of works presence during works is required, and that water vole displacement, if necessary, would be undertaken under Class Licence (CL31).

The Class Licence has timing restrictions for works. It also has restrictions on the methodology that can be employed to carry out the works. The licence can also only be relied upon if mitigation works include the creation or enhancement of alternative compensatory habitat so that there is no net habitat loss for water voles.

We also understand that the licence can only be used where vegetation removal does not exceed 50m on each bank of the same watercourse with 500m gaps between cuts on the same bank.

We previously requested confirmation that this licence is going to be suitable as an A11 licence may be more appropriate given the assumption that water voles are likely to make use of all suitable habitat to be affected by works, and/or if in the future, water voles are found across greater parts of the site. The applicant has detailed that which licence to apply for will be reviewed following updated surveys if the DCO is granted – we accept this approach.

*Compensation*

KCC EAS understand that the balancing ponds will be designed to be of value to riparian mammals by retaining an earth ledge and sloping bank above a shallow, permanent water level. The ledge is to be planted with emergent riparian vegetation. KCC EAS previously noted that the suitability of banks for burrowing has not been stated. The banks will need to have suitable substrate for water voles to burrow into. The updated information has confirmed that this was not specifically stated but confirmed that the ledge and bank of the water bodies would be earth to be suitable for water voles.

KCC EAS are further concerned that the water depth may be suboptimal. It is generally recognised that optimal water depth would be over 1m deep (Strachan *et al.,* 2011). KCC EAS are therefore concerned that some of the proposed habitat for water vole could be suboptimal. It continues to be the view that the created habitat be made optimal for water vole colonisation, especially given the known presence of American mink in the landscape (exact known locations not provided). KCC EAS accept that the water depth is a matter which can be managed within the detailed design and implementation of a suitable management plan if the DCO is granted. However there has to be an agreement at this stage that the water will always be managed to a height that can support the water vole population.

KCC EAS previously advised that the new ponds should also ensure that they are within sufficient proximity to nearby ditches to allow their natural colonisation. It is not exactly clear how close the ponds are proposed to be from nearby ditches (or the habitat suitability of those ditches), although plans do suggest a relative proximity. Water voles tend to prefer to stay within 5m of a watercourse or other waterbody (Strachan *et al.,* 2011). In the absence of suitable habitat and sufficient cover between the adjacent ditches and the newly created habitat, water voles may struggle to naturally colonise the new habitat. This point has been confirmed.

KCC EAS note that there was evidence of American mink within the waterbodies surveyed, although the exact locations have not been provided on plans for ease of reference. Evidence indicates that: "*In the vast majority of cases, populations* [of water vole] *can only exist if the habitat is correct and mink are absent. In cases where some coexistence between mink and water vole has been observed, this has been because the habitat was extremely extensive and not optimal for mink*" (Strachan *et al.,* 2011).

Taking the above, KCC EAS note that the new habitat is proposed in areas where water vole have not been recorded. The survey results are difficult to interpret. The habitat suitability and access for survey within the area of proposed new habitat is not clear. The ease of connectivity to nearby areas where water vole were recorded is unclear. In addition, it is not clear whether mink were recorded in this area. The ability of the new habitat to compensate for habitat losses will depend on the habitat suitability of connective habitat, presence of water voles nearby, and the presence of predators.

In response the applicant has stated "*Moreover, since the water voles and mink already co-exist, and only one record of mink was made during surveys, it is not considered inappropriate to deliver the mitigation habitat in this location, particularly since a considerable increase in the amount of habitat will result, compared to the amount to be lost".*

KCC EAS accept this point however advise that if the DCO is granted there will be a requirement for ongoing monitoring to be carried out and measures to address any increase in American mink population if identified during surveys.

KCC EAS would also suggest that plans for new water vole habitat include habitat elements known to reduce the effects of American mink predation such as maintaining good connections between the surrounding habitat and as much dense vegetative cover (including reedbeds) for water voles as possible to reduce their exposure to predators. This point can be addressed within the LEMP and a monitoring plan.

Further, whilst there are increased pressures from construction activities on the local water vole population, it may also be sensible to consider adding a mink control programme to the proposed mitigation measures for the project, or a financial contribution to an existing mink control programme (if possible). The applicant has detailed that this can be addressed as part of a LEMP however we advise that if a financial contribution is required that will have to be agreed as part of any Legal Agreement.

**Otters**

KCC EAS understand that two surveys (June 2024 and September 2024) were undertaken for otters in accordance with Monitoring the Otter (Chanin, 2003). The surveyors reportedly searched the watercourses and within 50m of the watercourses, where accessible, for otter field signs.

The presence of otter within the red line boundary was considered possible following survey, but was not confirmed. The possible otter field signs have not been presented on plans, although placing the grid references of the possible activity on a map indicates that these field signs are within areas expected to experience extensive works, including the construction of the converter station. KCC EAS previously queried whether further survey effort should have been carried out to assess the potential use of these watercourses and identify the possible requirement for mitigation/compensation.

In response the applicant has states: "*given the nature and ambiguity of the mammal runs, further survey would have no certainty of resolving the matter to species".* KCC EAS acknowledges this point and accept that no updated surveys on the development footprint are required at this stage.

KCC EAS previously stated that it is also unclear whether habitat within the golden plover and skylark habitat enhancement area/River Stour improvement areas have been surveyed, or whether habitat changes proposed in these areas could have any adverse effects on otter.

Adverse impacts may be unlikely, but need to be clarified. KCC EAS advise that this point was not addressed.

**Beavers**

KCC EAS understand that two surveys (June 2024 and September 2024) were undertaken for beavers. There is evidence of beavers within the red line boundary. No beaver signs have been reported on watercourses to be traversed by the scheme, except the River Stour where a clear span temporary bridge is proposed.

Currently KCC EAS are reasonably content with the information put forward with regards to beavers. However, it is currently unclear whether habitat within the golden plover and skylark habitat enhancement area/River Stour improvement areas have been surveyed, or whether habitat changes proposed in these areas could have any adverse effects on beaver. Adverse impacts may be unlikely, but need to be clarified.

**Bats**

KCC EAS understand that the haul routes (10m wide including drainage) 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, 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. There would also be several utilities diversions that would involve removal of approximately 0.1 ha of broadleaved plantation east of the A256, and a small area of immature plantation would need temporary removal, created in approximately 2016 when the road was expanded. There would also be burial of an existing section of UKPN overhead line under the existing overhead line in woodland west of the A256.

**Roosting Bats**

An initial ‘Daytime Bat Walkover’ (DBW) to assess the suitability of habitats within the Kent Onshore Scheme Order Limits and a 10m buffer to support roosting bats, foraging bats and bat flight lines was undertaken 26-28 June 2023. Further DBW and Ground Level Tree Assessment (GLTA) surveys were conducted 9-10 April 2024.

A total of eight trees within the survey area were assessed as supporting PRFs during the 2024 DBW surveys, but none of these trees are scheduled for removal and so no adverse effects are anticipated. If this changes in the future, further survey will be required. If any trees with bat roost suitability are subsequently affected by works (not understood to currently be anticipated), a ratio of three boxes for each tree with moderate bat roost suitability and five boxes for each tree with high bat roost suitability will be provided.

KCC EAS understand that there will be no lighting of trees with bat roost suitability.

**Foraging and Commuting Bats**

The project ecologists indicate that there are limited habitat features in the landscape suitable for foraging and commuting bats within the red line boundary. However, the site is still considered to be of regional importance for bats.

KCC EAS understand that the width of the cable corridor at hedgerow crossings and woodland belts will be limited to 20m where possible. It is also understood that the loss of hedgerow/woodland amounts to approximately 140m of species-poor hedgerow and linear roadside woodland and plantation along the A256.

During construction, gaps are to be reduced through 'dead hedging' to 10m maximum during the night. Then, when works are complete, we understand the intention will be to plant up gaps. Losses of hedgerow and woodland is expected to take 5-10 years to restore.

Direct illumination of boundary features will be avoided or kept to below 1lux during construction. Nighttime lighting will be limited to the minimum needed for safety at the construction and horizontal direct drilling (HDD) compounds.

It is understood that habitat creation works should provide sufficient compensation for habitat lost as part of the scheme. KCC EAS are currently reasonably content with the information put forward with regards to bats.

When KCC EAS previously commented we request confirmation that all areas of the site that could be affected by works have been surveyed. If certain areas have not been surveyed, it is requested that a full justification for the omission to confirm that adverse impacts in these areas are not anticipated.

In response the applicant has stated the following: "*all trees proposed for removal have been surveyed and the bat activity survey also adequately covered the areas where works could affect features used for bat commuting and foraging. This was sufficient to judge the value of the Order Limits for bats. Areas within the Order Limits were not subject to bat activity survey were locations that did not present suitable habitat, where there are existing tracks that will be used for access but not be subject to any development work, or in the golden plover/skylark mitigation area where no works are proposed to features that would be used by foraging or roosting bats".*

KCC WAS accept this point and no further information on bats are required at this point.

**Marine**

Please note that KCC EAS are not experts in Marine Ecology and therefore defer to the expertise of Natural England. However KCC EAS have reviewed the information and have the following matters to raise.

- Insufficient information has been provided assessing the construction impacts on the intertidal and subtidal benthic habits and communities and therefore it is unclear if the proposal will result in an impact on those priority habitats

- There has been an underestimation of sensitivity and potential colony abundance of the blue mussel *Mytilus edulis* and ross worm S*abellaria spinuosa.* Therefore underestimating the impacts and mitigation requirements

- No additional marine information has been provided.

Landfall is in the intertidal zone of Pegwell Bay National Nature Reserve, part of Sandwich Bay to Hacklinge Marshes SSSI, Thanet Coast & Sandwich Bay SPA and RAMSAR, and Thanet Coast SAC. The offshore section in Kent needs consideration for marine ecology for Thanet Coast MCZ, 1.2km north from the landfall site. The offshore scheme boundary runs along side a section of the Goodwin Sands MCZ, for 3.2km. Dover to Deal MCZ is 11.4km from the offshore scheme. Medway Estuary MCZ is 42.4km from the offshore scheme and has been considered for the indirect effects for migratory fish. The Southern North Sea SAC is circa 20km from the landfall site.

The Marine conservation zone assessment (Doc 6.11), stated the screening was carried out and the likely significant effects considered for the offshore scheme for the following;

- temporary physical disturbance to benthic habitats and species (Goodwin Sands MCZ only);

- temporary increase in SSC and deposition

- underwater noise (Goodwin Sands MCZ and Medway Estuary MCZ only);

- direct loss of benthic habitats and species (Goodwin Sands MCZ only);

- effects from thermal emissions (Goodwin Sands MCZ and Medway Estuary MCZ only)

- effects of EMF emissions (Goodwin Sands MCZ and Medway Estuary MCZ only); and

- decommissioning effects

The stage 1 assessment reported '*these impact pathways are not considered to have significant effects on the designated features or conservation objectives of these MCZs*.'

**Benthic Ecology**

The Kent benthic ecology for the application site has predominately sublittoral mixed and course sediments, infralittoral fine or muddy sand and mediterranean moderate energy circalittoral rock. As there is presence of dynamic mobile sediments, consideration is needed

for any impacts of cable trenching/laying, protective measures such as rock armour, marine protection structures, temporary anchor moorings, scouring and accretion of sediments, smothering of habitats/species, or other changes, including to the hydrodynamics, that may affect the designated features of the protected areas noted above.

The key consideration for the benthic fauna, and considered within the reports, is for blue mussel *Mytilus edulis* and ross worm S*abellaria spinuosa*, which are part of the designated features for Goodwin sands and Thanet Coast MCZ and the current management approach for both species is 'recover to a favourable condition' for Goodwin Sands MCZ. Thanet Coast MCZ is 'maintain in a favourable condition' for blue mussels and to 'recover to a favourable condition' for ross worms.

Reef worm and mussel bed formations (both UK Priority Habitats) were considered and grab sampling and video evidence was carried out, but it was difficult to find the locations of this sampling within the documentation. Both species were identified, with reef formations identified for Blue Mussel beds, Annex I habitat, reported as not overlapping with the Offshore scheme. Reef formations were not reported for the ross worm, with smaller populations noted. We highlight that in Natural England's (NE) response Benthic Ecology, NE, 23/6/25 they have raised concerns regarding the MCZ assessment and the construction impacts on the intertidal and subtidal benthic habits and communities and there is a risk that priority habitats will be impacted. They have requested updated documents to consider all the potential pathways of effect.

KCC EAS defer to the specialist knowledge and detailed advice provided by NE and agree with the recommendations provided. It is considered that the underestimation of sensitivity and potential colony abundance of the above species is a concern to fully understand and mitigate the impacts of the project, for the protected areas.

This is not our area of expertise but KCC EAS highlight information has been provided regarding the impacts of the offshore cabling on sediments and changes to the seafloor. This has been assessed as a minor impact, but we consider that a regular monitoring programme for the seafloor along and adjacent to the cabling route should be in place, especially on the section adjacent to Goodwins Sands MCZ, to ensure there are no negative impacts to the condition status for blue mussel and ross worm communities and the MCZ overall. Measures are in place for depth of burial surveys (MPE05) and this could be an additional action within the Offshore CEMP (Doc 7.5.2), carried out for the lifetime of operation and decommissioning.

**Marine Mammals**

Marine mammals have been considered for the application. The key species that were considered for the offshore scheme are harbour and grey seal and harbour porpoise. The Kent Seal survey was conducted primarily within River Stour, with riverbank haul out areas with a predominance of harbour seals. A small number of grey seals are considered present outside the Stour and within the bay.

The Southern North Sea SAC (SNS SAC) is designated for Harbour porpoise, it was noted greatest densities are likely to occur in Suffolk waters (Marine mammals Doc 6.2.4.4 ref 4.7.5). We recognise there may be a lower presence within the Kent scheme area but we consider the harbour porpoise should still be fully considered in the mitigation for the Kent scheme. NE have highlighted the survey timings were not optimum as the SAC is designated for winter, Oct – Mar presence.

As noted above, NE queried some survey timings and JNCC has queried the narrow range of data sources, and therefore a presence for harbour porpoise and seasonal restrictions required for mitigation. In section 4.9.42 (Doc ref 6.2.4.4 Ver C) consideration has been given to the seasonal variation and works will avoid the winter period for the cable corridor SNS SAC. We note the Marine Mammal mitigation plan (Doc 7.5.11) has not yet been updated to reflect that timing requirement.

In the Marine Mammals Mitigation plan (Doc ref.7.5.11) underwater noise is considered and monitoring is recommended for noise from Sub-bottom profiling (SBP) works, with a soft start and a suitably qualified Marine mammal observer (MMO) present on vessels, with Offshore Passive Acoustic Monitoring (PAM) also used when required. We consider that this would be suitable mitigation for the potential presence of noise sensitive harbour porpoise and other marine mammals.

The offshore cabling trenching/levelling activities are noted (Table 1.2 Doc ref 7.5.11) as low intensity and no mitigation is stated as required. We disagree that no mitigation is required and would also expect this to state a competent marine mammal observer to be present on the cabling works vessels, or a nearby safety vessel, as a precautionary measure for harbour porpoise and any other marine mammals that may be in/passing through the works area.

Airborne noise could impact the seals present on the haul out areas. They have been noted as less impacted by airborne noise and noise levels will remain within the Order limits.

Unexploded ordnance (UXO) if discovered will be subject to a separate marine licence and impact and mitigation will be on a case by case basis which is appropriate.

**Fish and Shellfish**

This is not KCC EAS's area of expertise and our comments below have focussed on the migratory fish which links to onshore ecology.

The potential effects of the proposed project temporary physical disturbance, increase in suspended sediments in the water column, underwater noise and electro magnetic frequency (EMF) emissions. The marine ecology assessment for fish and shellfish (Doc Ref 6.2.4.3) states that temporal disturbance will occur to the habitat.

The sensitivity for the following migratory fish is considered high for the following species; European eel, Atlantic salmon, brown trout, sea and river lamprey, European smelt and shad. For pelagic fish herring sensitivity is medium with sprat and mackerel low. The pelagic

fish will be less affected as they inhabit the water column and are found less on the sea floor or the shore.

Spawning grounds and migratory fish have been considered within the environmental assessment. KCC EAS note that the information for evidence of records of migratory fish within the Kent River Stour was minimal and as a result migratory fish have been scoped out of the assessment. However, mitigation measures have been included within the CEMP (Doc ref 7.5.3.1 app A), for culvert works an ecological watching brief has been proposed, soft start non percussive piling has been used for bridge construction over the river to allow fish to vacate the area which is appropriate.

The target depth of lowering of the cable offshore has been proposed at 1-2.5m, with associated cable bundling to reduce the potential for EMF to reduce impacts to species sensitive to EMFs.

KCC EAS consider that the main marine ecology for the protected areas has been considered but highlight the comments from Natural England and JNCC regarding the survey effort and information sources used, and their proposed recommendations.

**Biodiversity Net Gain**

A BNG assessment has been submitted and detailed that the proposal will result in a loss of BNG for habitats, linear features and water course units.

**Table 3.23 Summary of results - Kent Site**

| Habitat Type | Baseline | Post-Development | Total Net Unit Change | Total Net % Change |
|---|---|---|---|---|
| Area Units | 323.77 | 308.56 | -15.21 | -4.70% |
| Hedgerow Units | 17.33 | 12.39 | -4.94 | -28.51% |
| Watercourse Units | 42.95 | 40.29 | -2.66 | -6.20% |

It is the view of KCC EAS that insufficient information has been provided detailing how they have reached these conclusions. The submitted information has not provided details of the condition assessments or how additionality has been taken into account. Habitat creation or enhancement cannot fully count towards a BNG if it is also required for protected species mitigation or mitigation for a designated site. What you can count towards a development's biodiversity net gain - GOV.UK.

A metric has not been submitted to review as part of the BNG assessment therefore it is not understood what the trading rule impacts are.

The submitted information has also not confirmed that the habitat creation required as part of the proposal will be implemented in Kent.

**Habitat Regulation Assessment**

KCC EAS highlight that they have continued to raised concerns in relation to the mitigation land required for the functionally linked land. KCC EAS advise that this will have to be addressed to ensure that the proposal can demonstrate that there will be no adverse impact.

KCC EAS draw the applicants attention to Natural England Standing Advice *'Air pollution and development: advice for local authorities. How to assess sector-specific planning applications that could affect air quality on a protected site'* which was posted on gov.uk on 16 October 2025. This advise will need to be taken account off when producing the HRA.

Consideration of the impact from noise on birds associated with the SPA is based on the results of the Nosie Assessments - we advise that the determining authority must be satisfied that the noise assessments used to inform the HRA are correct.

This response was submitted following consideration of the following documents:

*Sea Link – The Applicant's Response to the Kent County Council Ecology Consultation Responses; ACOM; 10th October 2025*

*Sealink, Volume 6: Habitat Regulations Assessment; Planning Inspectorate Reference: EN020026; May 2025*

*Sealink, Volume 2: Plans and Drawings Document 2.13: Design and Layout Plans Planning Inspectorate Reference: EN020026 Version:A March 2025*

*Sea Link Volume 6: Environmental Information Document: 6.11 Marine Conservation Zone Assessment Planning Inspectorate Reference: EN020026 Version: A March 2025*

*Sealink, Volume 6: Environmental Statement Document 6.2.3.2 Part 3 Kent Chapter 2 Ecology and Biodiversity, Planning Inspectorate Reference: EN020026 Version: A March 2025*

*Sea Link Volume 6: Environmental Statement Document 6.2.3.5 Part 3 Kent Chapter 5 Geology and Hydrogeology Planning Inspectorate Reference: EN020026 Version: A March 2025*

*Sea Link Volume 6: Environmental Statement Document: 6.2.4.1 Part 4 Marine Chapter 1 Physical Environment Planning Inspectorate Reference: EN020026 Version: A March 2025*

*Sea Link Volume 6: Environmental Statement Document: 6.2.4.2 Part 4 Marine Chapter 2 Benthic Ecology Planning Inspectorate Reference: EN020026 Version: A March 2025*

*Sea Link Volume 6: Environmental Statement Document: 6.3.4.2.A Part 4 Marine Chapter 2 Appendix 4.2.A Benthic Characterisation Report (Original Report) Planning Inspectorate Reference: EN020026 Version: A March 2025*

*Sea Link Volume 6: Environmental Statement Document: 6.2.4.3 Part 4 Marine Chapter 3 Fish and Shellfish Planning Inspectorate Reference: EN020026 Version: A March 2025*

*Sea Link Volume 6: Environmental Statement Document: 6.2.4.4 Part 4 Marine Chapter 4 Marine Mammals Planning Inspectorate Reference: EN020026 Version: C July 2025*

*Sea Link Volume 6: Environmental Statement Document: 6.3.4.4.A Part 4 Marine Chapter 4 Appendix 4.4.A Pegwell Bay Seal Survey Report Planning Inspectorate Reference: EN020026 Version: A March 2025*

*Sealink, Volume 6: Environmental Statement Document 6.4.3.2.A Part 3 Kent Chapter 2 Appendix 3.2.A Extended Phase 1 Habitat Survey Report - Figures (CONFIDENTIAL) Planning Inspectorate Reference: EN020026 Version: A March 2025*

*Sea Link Volume 6: Environmental Information Document: 6.6 Habitats Regulations Assessment Report Planning Inspectorate Reference: EN020026 Version: A March 2025*

*Sea Link Volume 7: Other Documents Document 7.5.2 Outline Offshore Construction Environmental Management Plan Planning Inspectorate Reference: EN020026 Version: A March 2025*

*Sea Link Volume 7: Other Documents Document 7.5.11 Outline Marine Mammal Mitigation Plan Planning Inspectorate Reference: EN020026 Version: A March 2025*

*Sea Link Volume 7: Other Documents Document 7.5.3.1 Register of Environmental Actions and Commitments (REAC) Planning Inspectorate Reference: EN020026 Version: A March 2025*

*Sea Link Volume 7: Other Documents Document 7.5.3.1 CEMP Appendix A Outline Code of Construction Practice Planning Inspectorate Reference: EN020026 Version: A March 2025*

*Sea Link Volume 7: Other Documents Document 7.5.8.2 Outline Construction Noise and Vibration Management Plan – Kent, Planning Inspectorate Reference: EN020026 Version: A March 2025*

*National Grid (March 2025) The Great Grid Upgrade: Sea Link. Volume 6: Environmental Statement. Document: 6.4.3.2.N. Part 3 Kent. Chapter 2 Appendix 3.2.N. Aquatic Ecology Survey Report - Figures. Version: A.*

*National Grid (March 2025) The Great Grid Upgrade: Sea Link. Volume 6: Environmental Statement. Document: 6.4.3.2.H. Part 3 Kent. Chapter 2 Appendix 3.2.H. Riparian Mammal Report – Figures. Version: A.*

*National Grid (March 2025) The Great Grid Upgrade: Sea Link. Volume 6: Environmental Statement. Document: 6.3.3.2.H. Part 3 Kent. Chapter 2 Appendix 3.2.H. Riparian Mammal Report. Version: A.*

*National Grid (March 2025) The Great Grid Upgrade: Sea Link. Volume 6: Environmental Statement. Document: 6.3.3.2.L. Part 3 Kent. Chapter 2 Appendix 3.2.L. Nighttime Bat Walkover and Static Detector Survey Report. Version: A.*

*National Grid (March 2025) The Great Grid Upgrade: Sea Link. Volume 6: Environmental Statement. Document: 6.3.3.2.K. Part 3 Kent. Chapter 2 Appendix 3.2.K. Bat Tree Survey Report. Version: A.*

*National Grid (March 2025) The Great Grid Upgrade: Sea Link. Volume 6: Environmental Statement. Document: 6.4.3.2.K. Part 3 Kent. Chapter 2 Appendix 3.2.K. Bat Tree Survey Report - Figures. Version: A.*

*National Grid (March 2025) The Great Grid Upgrade: Sea Link. Volume 6: Environmental Statement. Document: 6.4.3.2.L. Part 3 Kent. Chapter 2 Appendix 3.2.L. Nighttime Bat Walkover and Static Detector Report – Figures Part 1 of 3. Version: A.*

*National Grid (March 2025) The Great Grid Upgrade: Sea Link. Volume 6: Environmental Statement. Document: 6.4.3.2.L. Part 3 Kent. Chapter 2 Appendix 3.2.L. Nighttime Bat Walkover and Static Detector Report – Figures Part 2 of 3. Version: A.*

*National Grid (March 2025) The Great Grid Upgrade: Sea Link. Volume 6: Environmental Statement. Document: 6.4.3.2.L. Part 3 Kent. Chapter 2 Appendix 3.2.L. Nighttime Bat Walkover and Static Detector Report – Figures Part 3 of 3. Version: A.*

*National Grid (March 2025) The Great Grid Upgrade: Sea Link. Volume 7: Other Documents. Document: 7.5.3.1. Register of Environmental Actions and Commitments (REAC). Version: A.*

*National Grid (March 2025) The Great Grid Upgrade: Sea Link. Volume 7: Other Documents. Document: 7.5.7.2. Outline Landscape and Ecological Management Plan - Kent. Version: A.*

*National Grid (March 2025) The Great Grid Upgrade: Sea Link. Volume 6 Documents 6.4.3.2.A Phase 1 Habitat Survey Report;*

*National Grid (March 2025) The Great Grid Upgrade: Sea Link. Volume 6 Documents 6.4.3.2.N Aquatic Ecology Report.*

*National Grid (March 2025) The Great Grid Upgrade: Sea Link. Volume 6 Documents Document 6.2.3.2.B Appendix 3.2.B Wintering Bird Survey Report 2022-2023;*

*National Grid (March 2025) The Great Grid Upgrade: Sea Link. Volume 6 Documents 6.2.3.2.C Appendix 3.2.C Wintering Bird Survey Report 2023-2024;*

*National Grid (March 2025) The Great Grid Upgrade: Sea Link. Volume 6 Documents 6.2.3.2.D Appendix 3.2.D Breeding Bird Survey Report 2023;*

*National Grid (March 2025) The Great Grid Upgrade: Sea Link. Volume 6 Documents 6.2.3.2.E Appendix 3.2.E Breeding Bird Survey Report 2024;*

*National Grid (March 2025) The Great Grid Upgrade: Sea Link. Volume 6 Documents 6.2.3.2.F Appendix 3.2.F Vantage Point Survey Report incorporating Collision Risk Assessment;*

*National Grid (March 2025) The Great Grid Upgrade: Sea Link. Volume 6 Documents 6.2.3.2.G Appendix 3.2.G Overhead Line Mortality Monitoring Survey Report;*

*National Grid (March 2025) The Great Grid Upgrade: Sea Link. Volume 6 Documents 6*

6.2.3.2.I Appendix 3.2.I Reptile Survey Report;

*National Grid (March 2025) The Great Grid Upgrade: Sea Link. Volume 6 Documents 6.2.3.2.M Appendix 3.2.M Hazel Dormouse Survey Report; and*

*NIEA (2011) Otters and Development.*

*Representation by Natural England*

*Benthic Ecology Appendix E to the Relevant Representations of Natural England, 23/6/25*

*Marine Mammals Appendix F to the Relevant Representations of Natural England, 23/6/25*

*Kent Onshore Appendix B to the Relevant Representations of Natural England,23/6/25*

*Representation by Joint Nature Conservation Committee (JNCC), 20/6/25*

*Application Document 6.2.4.1 Part 4 Marine Chapter 1 Physical Processes*

# Highways

## Executive Summary

Kent County Council Highways (KCC Highways) considers that the Kent Onshore Scheme proposes significant infrastructure works including a High Voltage Direct Current (HVDC) converter station, substation, underground cable routes, and associated access and haul roads. The construction phase is expected to span from 2026 to 2031, with peak activity in 2030. This LIR assesses the local transport impacts across the construction and operational phases, identifying positive, neutral, and negative effects.

This report provides a technical and evidence-based assessment of the anticipated transport and traffic impacts arising from the proposed development, as set out in the following Application Documents:

*6.2.3.7 Environmental Statement Part 3 Kent Chapter 7 Traffic and Transport*

*6.2.3.12 Environmental Statement Part 3 Kent Chapter 12 Kent Onshore Scheme Intra-Project Cumulative Effects*

*6.2.3.13 Environmental Statement Part 3 Kent Chapter 13 Kent Onshore Scheme Inter-Project Cumulative Effects*

*6.3.3.7.A Appendix 3.7.A Transport Assessment Note*

*6.3.3.7.B Appendix 3.7.B Traffic and Transport Thematic Meeting Minutes*

*6.3.3.7.C Appendix 3.7.C Receptor Sensitivity Levels*

*6.3.3.7.D Appendix 3.7.D Baseline Traffic Movements*

*6.3.3.7.E Appendix 3.7.E Construction Worker Trip Distribution*

*6.3.3.7.F Appendix 3.7.F Saturday Trip Generation Tables*

*6.3.3.7.G Appendix 3.7.G Traffic Flow Diagrams*

*6.3.3.7.H Appendix 3.7.H Preliminary Highway Impact Assessment*

*6.3.3.7.I Appendix 3.7.I Magnitude of Change*

*6.3.3.7.J Appendix 3.7.J Traffic and Transport Assessments.*

*2.6 Plans and Drawings Traffic Regulation Order Plans*

*7.5.1.2 Other Documents Outline Construction Traffic Management and Travel Plan – Kent*

KCC Highways considers the following:

## Positive Impacts

- Permanent Access Improvements: The creation of a new permanent access off the A256 and vegetation clearance at Marsh Farm Road and Whitehouse Drove may offer long-term benefits for local access and maintenance.
- Sustainable Travel Measures: Implementation of car sharing, minibus services, and cycle infrastructure for construction staff promotes modal shift and reduces single-occupancy vehicle trips.
- Traffic Management Systems: The Delivery Management System (DMS) and Traffic Management and Monitoring System (TMMS) will regulate HGV movements, reducing peak-hour congestion and improving safety.

**Neutral Impacts**

- Public Transport Accessibility: While Thanet Parkway and Minster stations are within proximity, limited pedestrian and cycling infrastructure between these and the site limits their utility. The provision of shuttle services mitigates this.
- Use of Existing Strategic Routes: The majority of HGV traffic is routed via the A299 and A256, which are suitable for such volumes, assuming mitigation measures are implemented effectively.

**Negative Impacts**

KCC Highways considers that the proposed Kent Onshore Scheme will generate substantial construction traffic over a multi-year period, with several localised and strategic transport impacts. These are detailed below with supporting data and analysis.

- Construction Traffic Volume and Congestion:
    - Peak Daily Movements: The Construction and Traffic Management and Travel Plan (CTMTP) forecasts up to 508 daily vehicle movements, including 108 HGVs. This represents a significant uplift over baseline flows on rural and semi-rural roads such as Ebbsfleet Lane and Sandwich Road.
    - Local Road Constraints: Ebbsfleet Lane is subject to a 7.5-tonne weight restriction, and Sandwich Road has limited carriageway width and poor visibility at junctions. These constraints heighten the risk of congestion, vehicle conflict, and delay.
    - Traffic Flow Impact: Based on 2022 traffic counts, the A256 north of Sandwich carries approximately 12,000 vehicles per day. An increase of 100+ HGVs daily could represent a 0.8–1.2% uplift, which may appear modest but is significant when concentrated during peak hours or at sensitive junctions.

- Abnormal Indivisible Loads (AILs):
    - Vehicle Dimensions: AIL deliveries will involve vehicles up to 74 metres in length, requiring bespoke routing and temporary traffic orders. These movements will affect:
    - Monkton Roundabout: Tight geometry and splitter islands may require removal of street furniture.
    - Ramsgate Road / A256 Junctions: Swept path analysis indicates potential overruns and encroachment into opposing lanes.
    - Delivery Frequency: The CTMTP anticipates multiple AIL movements per month during peak delivery phases, each requiring police escort, road closures, and advance public notification.
    - Impact Duration: Each AIL movement may cause 15–30 minutes of disruption per junction, with cumulative impacts across the network.

- Vulnerable Road Users and PRoW Interface:

    - Public Rights of Way (PRoW): TE37 and TE39 intersect with haul roads and cable routes. While diversions are proposed, there remains a risk of:
    - Reduced accessibility for walkers and cyclists.
    - Safety concerns at crossing points, particularly during HGV ingress/egress.
    - Cyclist Safety: The A256 and surrounding lanes are used by recreational and commuting cyclists. Increased HGV traffic may deter usage and elevate collision risk, especially where no segregated infrastructure exists.

- Highway Safety Sensitivity:

    - Accident Data: Kent County Council's crash map data (2018–2022) identifies several junctions with elevated Personal Injury Accident (PIA) rates:
    - A256 / Ramsgate Road: 7 PIAs in 5 years.
    - Cottington Lane / Sandwich Road: 5 PIAs in 5 years.
    - Minster Roundabout: 6 PIAs in 5 years.
    - Risk Amplification: Increased HGV movements, turning manoeuvres, and temporary junction modifications may exacerbate existing safety risks unless mitigated through signage, speed control, and enforcement.

- Temporary Loss of Amenity:

    - Noise and Air Quality: Construction traffic will generate elevated noise levels, particularly near compounds and access points. The CTMTP identifies receptors near Pegwell Bay and Minster as sensitive.
    - Dust and Vibration: Unsealed haul roads and frequent HGV movements may cause dust dispersion and vibration impacts, affecting residential amenity and ecological receptors.
    - Visual Intrusion: The presence of large vehicles, temporary signage, and traffic management infrastructure may alter the character of rural lanes and PRoW corridors.

**Proposed Highway Accesses**

KCC Highways considers that he Sea Link Kent Onshore Scheme involves the creation and modification of several highway accesses to facilitate construction and long-term maintenance. These accesses are critical to the safe and efficient movement of construction traffic, abnormal loads, and workforce vehicles. The following outlines the key access points and their associated considerations.

- **Permanent Access off the A256**

    - Location: A new permanent access is proposed directly off the A256, south of Cottington Lane, to serve the converter station and substation.

- Design Features:
  - Designed to accommodate HGVs and Abnormal Indivisible Loads (AILs) up to 74m in length.
  - Includes turning radii and visibility splays compliant with DMRB standards.
  - Surfaced to adoptable standards with drainage and signage.

- Functionality:
  - Serves as the primary access for construction and operational phases.
  - Reduces reliance on local roads and minimises disruption to residential areas.

- Impact Assessment:
  - Located on a strategic route with sufficient capacity.
  - May require temporary traffic management during peak delivery periods.
  - Potential safety concerns due to proximity to existing junctions and speed limits on the A256.

- **Upgraded Access via Cottington Lane**

  - Location: Cottington Lane will be upgraded to support access to cable route works and temporary compounds.

  - Design Features:
    - Strengthened carriageway and verge to accommodate HGVs.
    - Temporary widening and passing bays where necessary.

  - Functionality:
    - Supports cable installation and haul road logistics.
    - Provides alternative routing to reduce pressure on the A256.

  - Impact Assessment:
    - Narrow geometry and residential frontage may lead to amenity concerns.
    - Requires careful scheduling and banksman control to manage vehicle movements.

- **Whitehouse Drove Access**

  - Location: Whitehouse Drove will be used to access the cable corridor and temporary works areas.

  - Design Features:
    - Temporary surfacing and reinforcement for HGV use.
    - PRoW interface management with crossing controls.

- Functionality:
  - Facilitates cable trenching and haul road construction.
  - May be used for material delivery and spoil removal.

- Impact Assessment:
  - Sensitive ecological and landscape setting.
  - Requires dust suppression and noise mitigation.

- **Temporary Construction Accesses**

  - Multiple Locations: Temporary accesses are proposed at various points along the cable route and near compounds.

  - Design Features:
    - Typically unbound surfaces with wheel washing facilities.
    - Signage and traffic control measures at junctions.

  - Functionality:
    - Used for short-term construction activities and compound setup.
    - Decommissioned and reinstated post-construction.

  - Impact Assessment:
    - May cause short-term disruption to local roads and PRoWs.
    - Require coordination with local highway authority for permits and safety audits.

- **Junction Modifications for AILs**

  - Affected Junctions:
    - Monkton Roundabout
    - Ramsgate Road / A256
    - Minster Roundabout

  - Design Features:
    - Temporary removal of street furniture and signage.
    - Swept path analysis confirms feasibility with escort and marshals.

  - Impact Assessment:
    - Requires advance notification and traffic orders.
    - May cause delays and safety risks during manoeuvres.

**Mitigation and Monitoring Strategies**

KCC Highways considers that he Outline Construction Traffic Management Plan (CTMTP) proposes a comprehensive suite of mitigation measures designed to minimise adverse

transport and traffic impacts during the construction of the Kent Onshore Scheme. These strategies are grouped into the following categories:

- Traffic Regulation and Control:
    - Delivery Management System (DMS): A centralised booking system will regulate all HGV movements to and from the site, preventing unscheduled arrivals and ensuring that vehicle flows are spread throughout the day to avoid peak-hour congestion.
    - Traffic Management and Monitoring System (TMMS): Real-time monitoring of vehicle movements will be used to enforce compliance with routing and timing restrictions. This system will also support incident response and adaptive traffic control.
    - Timed Access Restrictions: HGV movements will be restricted during sensitive periods (e.g., school drop-off/pick-up times, peak commuter hours) to reduce conflict with local traffic and vulnerable road users.

- Route Management and Infrastructure Protection
    - Designated HGV Routes: All construction traffic will be routed via strategic corridors (A299, A256) with appropriate capacity and geometry. Local roads will be avoided unless essential, and only with prior agreement and mitigation.
    - Road Condition Surveys: Pre-construction, during works, and post-construction surveys will be undertaken to assess wear and tear. A commitment to repair any damage attributable to construction traffic will be secured via legal agreement.
    - Junction Modifications and Swept Path Analysis: Temporary modifications (e.g., removal of street furniture, widening of corners) will be implemented at constrained junctions to accommodate Abnormal Indivisible Loads (AILs). These will be reinstated post-delivery.

- Site Access and Internal Movement Controls
    - Banksmen and Gate Marshals: Trained personnel will manage vehicle movements at site access points and internal haul road crossings, ensuring safe interaction with public highways and PRoW users.
    - Wheel Washing and Dust Suppression: To prevent debris and dust from affecting local roads, wheel washing facilities and dust suppression systems will be installed at all site exits.
    - Staggered Shift Patterns: Construction worker arrivals and departures will be staggered to reduce peak-hour pressure on local roads and junctions.

- Sustainable Travel and Workforce Management
    - Minibus and Shuttle Services: Dedicated transport will be provided for construction staff from Thanet Parkway and Minster stations, reducing reliance on private vehicles.

- Car Sharing Incentives: A car share scheme will be promoted among workers, supported by priority parking and internal communications.
- Cycle Parking and Infrastructure: Secure cycle parking and improved access routes will be provided to encourage active travel among staff.

- Public Rights of Way (PRoW) and Community Interface

  - Temporary Diversions and Signage: Where PRoWs intersect with haul roads or construction zones, safe and clearly signed diversions will be implemented. These will be designed to maintain accessibility and minimise disruption.
  - Community Liaison and Notification: A proactive communication strategy will inform residents, businesses, and stakeholders of upcoming traffic changes, diversions, and delivery schedules. This will include newsletters, signage, and a dedicated contact point.
  - Complaints and Feedback Mechanism: A formal process will be established to receive, investigate, and respond to transport-related complaints during construction.

- Enforcement and Compliance

  - Construction Traffic Code of Conduct: All contractors and drivers will be required to adhere to a code of conduct covering speed limits, noise minimisation, and respectful driving behaviour.
  - Penalty and Escalation Procedures: Breaches of routing or timing restrictions will be subject to enforcement measures, including fines, retraining, or removal from site access privileges.
  - Monitoring and Reporting: Regular reporting to the Local Planning Authority and Kent County Council Highways will ensure transparency and accountability in traffic management.

**Highways Conclusion**

KCC Highways considers that the Kent Onshore Scheme presents a complex but well-managed construction programme with significant transport implications. While strategic benefits and mitigation measures are acknowledged, the scale and nature of construction traffic pose potential impacts that require robust enforcement and ongoing monitoring. The Local Authority recommends that all proposed mitigation measures be secured through the Development Consent Order (DCO) and that further engagement with KCC Highways continues throughout the detailed design phase.

## Lead Local Flood Authority (LLFA)

As part of the works within Kent it is noted that it is proposed for various significant infrastructure works including a High Voltage Direct Current (HVDC) converter station, substation, underground cable routes, and associated access and haul roads to be installed and constructed.

As the Lead Local Flood Authority at Kent County Council (KCC LLFA), we have undertaken a review of the available information with regards to assessing whether the proposals adequately address surface and ground water flood risk and SuDS (Sustainable Drainage Systems). It should be noted that, given that trenchless technology is to be used for the installation of buried infrastructure our principle concerns relate to above ground construction areas and the accesses there to and the implications these could have on existing surface water flow paths and possible additional flows of surface water leaving site ultimately leading to an increased risk of flooding from surface water.

This report presents a technical, evidence-based assessment of the anticipated impacts of the proposed development on the surface water environment, as detailed in the following Application Documents:

*2.14.2: Plans and Drawings Vol 2, Indicative General Arrangements Plans -Kent*
*6.2.1.4: Environmental Statement Vol 6, Part 1 Introduction, Chapter 4 Description of the Proposed Project*
*6.2.3.4: Environmental Statement Vol 6, Part 3, Chapter 4 Water Environment*
*6.3.1.4.A: Environmental Statement Vol 6, Part 1 Introduction, Chapter 4 Appendix 1.4.A Crossing Schedules*
*6.3.3.5.B: Environmental Statement Vol6, Part 3 Kent, Chapter 5 Appendix 3.5.B Qualitative Groundwater Risk Assessment*
*6.4.1.4: Environmental Statement Vol 6, Part 1 Introduction, Chapter 4 Description of the Proposed Project – Figures*
*6.4.3.4: Environmental Statement Vol 6, Part 3 Kent, Chapter 4 Water Environment - Figures*
*6.8: Environmental Information Vol 6, Flood Risk Assessment*
*6.9: Environmental Information Environmental Information Vol 6, Water Framework Directive Assessment*
*7.5.3.1: Other Documents Vol 7, CEMP Appendix A Outline Code of Construction Practice*
*9.4: Examination Submissions Vol9, Supplementary Environmental Information – Flood Risk Assessment*

**Policy Context**

The policies referred to under section 4.2 of document 6.2.3.4 would seem appropriate and correct, and KCC LLFA are pleased to note our own Drainage and Planning Policy has been considered.

However, and whilst understanding that the recently updated DEFRA SuDS Technical

Standards (2025) are not legally mandatory for Nationally Significant Infrastructure Projects (NSIPs), they can still be applied voluntarily and KCC LLFA would expect to be considered as part of formalising drainage designs and SuDS proposals as the project progresses. (National standards for sustainable drainage systems (SuDS) - GOV.UK)

**Assessment of Flood Risk Impacts**

Generally, based on review of DEFRA's flood map for planning, the main source of flood risk within the development order area is associated with the River Stour, with areas of Flood Zones 2 and 3 (medium to high) risk associated with the watercourse encroaching onto land within the Order Limits, where the Proposed Project makes landfall, and inland, to the west and south of the Minster Converter and Substation, where the study area crosses the River Stour.

Overarching principles have been proposed to mitigate flood risk to and from the existing flood zones which being in relation to fluvial rather than pluvial flood risk is a matter for the Environment Agency (EA) to address and accept.

The EA's flood map for planning further indicates various locations of surface water flood risk throughout the development order site which would appear to either reflect routes of existing ordinary watercourses within the site limits or localised areas of 'ponding' due to depressions, etc. The level of risk shown is generally classified as low risk although raised in some areas but these higher risk areas are outside of the areas proposed for the permanent structures.

As per the documentation supplied, the works associated with the development order broadly fall into 2 categories for surface water flood risk consideration – the construction phase and the operational stage.

The existing surface watercourse networks throughout the development order site are currently utilised to drain and facilitate the surrounding land parcels. All works within the development order site to the west of sandwich road are within the River Stour Internal Drainage Board area of remit and will require their consent and approval for any new connections or diversion, etc of existing watercourses.

The information submitted further details that some of the fields within the development order site (specifically in relation to Minster Converter Station and Substation footprint) also contain land drains which serve to convey surface water from the field within which they are situated.

Any works which are proposed in association with either the construction or operational stage of the proposals could have a detrimental effect on these drainage networks which could ultimately lead to the risk of flooding from surface water being increased to and from the development order area.

In association with the construction phase and in order to facilitate development several haul roads and construction compound areas are required to be built, these will need to consider

the continuous operation of the existing drainage networks so as to not increase the surface water flood risk. The haul roads will require a number of crossing points which could adversely impact the physical characteristics and natural processes of the watercourses, potentially altering channel profiles, flow regimes, and possible floodplain connectivity. With regards to the Minster Converter Station and Substation there is additional risk associated with both the construction and operational phase activities whereby the existing field drainage system is to be removed and new additional flows of runoff associated with the newly created buildings and accesses will be created.

Information from the British Geological Society indicates that groundwater levels in association with the work order area are high and likely to be less than 3m below ground, this is further confirmed in the document 6.8: Flood Risk Assessment, Environmental Information Volume 6, paragraph 4.4.16 and is "*a consequence of impeded drainage caused by the nature of the underlying soils and geology*." Any works which could affect or alter groundwater movements will need to be carefully considered so as not to increase the risk of flooding associated with the proposals.

Whilst outside of our remit it is noted that a temporary bridge is to be constructed over the River Stour, being a main river this require the acceptance and approval of the Environment Agency and should not be to the detriment of flood risk or indeed activities generally associated with a main river.

Similarly, in that it is outside our remit, it is noted that a temporary compound area (between the A256 and Sandwich Road, on the east side of Cliffsend and immediately to the south of the roundabout junction between the A256 and A299) is required and that is situated within Groundwater Source Protection Zone 1. The Environment Agency's Groundwater Protection team will need to confirm their acceptance to this

**Drainage Strategy Review**

Upon reviewing the proposals and specifically document 6.8: Environmental Information Vol 6, Flood Risk Assessment it is noted that "*A sequential approach has been taken in siting Proposed Project infrastructure, particularly those elements that could be at risk of flooding during the operational lifetime of the Proposed Project. The substations, converter stations and cable transition joint bays are all located in Flood Zone 1*". This would appear appropriate, sensible and in line with best practice. It is further noted that "*Due to its linear nature some components of the Proposed Project must necessarily be in areas with a medium or high likelihood of flooding (Flood Zones 2 and 3)*." Again, this is accepted and given that these components will either be buried or above ground and so with regards to surface water flooding deemed low risk all be it the associated construction activities will need to be carefully considered with regards to the effects they could have on the existing surface water regime. The Environment Agency should provide comment with regards to the suitability of the proposals within Flood Zones 2 and 3 and any concerns they may have with regards to fluvial flood risk.

The same document (Para Ex 1.3.3 ) further states "*During operation, flood risk from rivers and the sea, surface water and groundwater sources is assessed to be low due to locating key infrastructure (the substations and converter stations) in Flood Zone 1 and implementing permanent surface water drainage solutions, based on suitable forms of Sustainable Drainage, embedding climate change resilience into the Proposed Project's design. The residual risk (associated with the overhead line pylons in Kent) is assessed as low*." KCC LLFA are in general agreeance with this.

The Flood Risk Assessment (FRA) further details (Para 3.3.2) that: "*The effects of climate change on rainfall intensity, in accordance with the latest published guidance in May 2022, would be included in the drainage design for the proposed Substation in Kent*". This is a requirement contained within Application Document 7.5.3.1 CEMP Appendix A Outline Code of Construction Practice, good practice measure W11 which specifically references the Environment Agency. KCC LLFA can confirm that we accept this proposal to utilise the rates as set by the Environment Agency and that it conforms with general good practice. As LLFA it is requested that detailed design submissions utilise the 'upper end' climate change allowance for both the 30 and 100 year epochs.

In association with the construction phase activities, it is again explained in the FRA (para 4.3.15) that the "*proposed HVDC underground cable route, Minster Converter Station and Substation, all construction compounds and all cable transition joint bays are outside of FZ1*". In association with construction activities within FZ3 areas it is further stated that (para 4.3.16A) "*trenchless crossing of Flood Zone 3 is proposed for the underground cable installation, which avoids effects on the River Stour and Stonelees Stream during construction and measures would be put in place during the installation to ensure the integrity of existing flood defences*". Again, this is set as a requirement within Application Document 7.5.3.1 CEMP Appendix A Outline Code of Construction Practice - good practice measure W12 and whilst we concur that this seems appropriate and sensible will ultimately require the acceptance of the Environment Agency being within FZ3.

As mentioned above in order to facilitate the construction of the proposals a number of existing watercourses require to be traversed, the proposals reviewed show that 27 temporary and four permanent culverts are proposed to enable access over the existing watercourses. It is further explained that any disruption to existing land drainage infrastructure, including subsurface agricultural field drainage networks, will be mitigated during construction of the permanent crossings through the implementation of temporary bypass systems or alternative conveyance means (para 4.4.7 of the FRA). This requirement is further explained in document 6.2.3.4: Environmental Statement Vol 6, Part 3, Chapter 4 Water Environment para 4.9.16 "*Culverts would be sized to maintain the existing land drainage regime (W04) and during installation pumps and pipes would operate to transfer the flow of water from the upstream side to the downstream side, bypassing the worksite*". Ultimately the provision of protection to existing watercourses is governed by the requirements of W04 of Document 7.5.3.1 CEMP Appendix A Outline Code of Construction Practice**.** Again, these proposals would appear sensible but as explained above the works are situated within the River Stour Internal Drainage Boards area of jurisdiction and so it will be they who ultimately have to accept and consent to the culverting of these watercourses.

In association with the temporary crossing of the River Stour KCC LLFA note that document 6.2.3.4: Environmental Statement Vol 6, Part 3, Chapter 4 Water Environment para 4.9.18 states that *"an open span bridge is proposed which would avoid any impact on in channel flows*". The abutments of the bridge would have a small footprint within the riparian zone, resulting in the potential for highly localised reduction in floodplain connectivity. Again, the Environment Agency, given it is designated a Main River with an associated adjacent floodplain, their acceptance of this reduction should be sought.

With regards to the construction of the permanent features namely the proposed Minster Converter Station and Substation and as mentioned above KCC LLFA note that groundwater levels in association with the work order area are high and likely to be less than 3m below ground. As such we are pleased to note that para 4.4.16 of the FRA confirms that investigatory works have been undertaken in this area and it is confirmed that there are high groundwater levels in the area because of "*impeded drainage caused by the nature of the underlying soils and geology.*". The same paragraph then explains that a 3.7m AOD raised platform is to be constructed in order to mitigate construction issues with such ground conditions and to facilitate better positive drainage.

As part of the construction activities it is proposed for the land drainage mentioned above within the footprint of the Minster Converter Station and Substation to be infilled and replaced by the drainage system as shown on Application Document 2.14.2 General Arrangements Plans – Kent. As part of detailed designs going forward, in order to demonstrate there is no increase to flood risk as a result of the works, KCC LLFA will expect for information and evidence to be supplied confirming the existing land drainage network and that the proposed replacement system can manage the surface water inline with the existing characteristics.

With regards to the operational surface water flood risk associated with the proposals KCC LLFA have no concerns in relation to the cable network being that it is either buried or above ground and so low risk. With regards to the proposed structures and hardstanding areas minimal information has been provided with regards to the onward management of surface water from these areas. That said, KCC LLFA note that para 4.4.7 of the FRA states that "*Surface water drainage from permanent infrastructure would be managed using SuDS in accordance with LLFA policies (W11)*".The control and management measure W11 contained within document 7.5.3.1: Other Documents Vol 7, CEMP Appendix A Outline Code of Construction Practice states:

*"Surface water drainage from permanent above ground infrastructure would be managed and treated using SuDS in accordance with policy and guidance requirements of the relevant Lead Local Flood Authorities to include allowances for climate change in accordance with current (May 2022) Environment Agency guidelines. These SuDS would be maintained over the lifetime of the Proposed Project and the drainage infrastructure would provide the storage necessary to achieve discharges at greenfield rates and would not significantly alter groundwater recharge patterns by transferring recharge quantities from one catchment to another."*

As such, KCC LLFA are satisfied that suitable surface water drainage mechanisms

associated with the proposals will be forthcoming as the scheme progresses and that these can be set as requirements of the DCO. KCC LLFA would however further advise that whilst noted reference is made throughout the suite of documents to maintain runoff rates from surface water to the equivalent greenfield runoff rates, no mention appears to be made in relation to volume. KCC LLFA would advise that the volume of runoff from the site post-development should not exceed the greenfield runoff volume for the 1 in 100-year, 6-hour rainfall event and that if this is not achievable, the difference must be stored and released at a controlled rate or treated and reused.

KCC LLFA notes that, following the request of the inspector, that a supplemental update to the Environment Statement, Flood Risk Assessment has been provided (6.9: Environmental Information Environmental Information Vol 6,  Water Framework Directive Assessment) which we can confirm we have also reviewed and that this raises no additional concerns.

Finally, it is noted that paragraph 1.3.2 of the FRA states "*A draft of this report was shared with the Environment Agency and feedback was received in February 2025, with subsequent updates made to address key comments.*" As KCC LLFA, we would have expected for the same courtesy to review and be involved in discussions in relation to water management to have been offered to ourselves.

**KCC LLFA Conclusion**

The Kent Onshore Scheme presents a complex project but with a suitably proposed strategy for manging surface water whilst being constructed and in perpetuity.

We recommend that any proposed mitigation measures be secured through the Development Consent Order (DCO) and that further engagement with KCC LLFA continues throughout the detailed design phase.

# Heritage Conservation

## Consultation & Engagement

The County Council's Principal Archaeological Officer has had extensive and detailed engagement with National Grid and their archaeological consultants and contractors through the development of the project and since its submission.

KCC lead on providing archaeological advice to both Thanet and Dover District Councils. Impacts on the setting of Built Heritage will be led on by the District Conservation Officers and Historic England. Historic England will generally lead on advice with respect to Offshore archaeology below the Mean Low Water mark.

Given the richness and significance of the archaeology in the area we have also worked closely with Historic England.

## Selection of a preferred option

Due to the rich archaeological landscapes of Thanet a preference was, in terms of archaeology impacts, for a land fall in the Sandwich Bay area and connection into the Richborough substation. The landfall in Pegwell Bay may have more intertidal impacts on archaeological assets though that is preferred to the options between Broadstairs and Margate and on the north Thanet / Kent coast that would have required extensive connection runs through rich archaeological landscapes. The option for the convertor site closest to Richborough substation was preferred though the high archaeological and historic landscape value of this area was highlighted.

## General Approach to archaeology

The works involve sizeable areas of land for the construction of the convertor station, the working widths and trenching areas for the cabling, reception pits, access roads both temporary and permanent and compounds. Pylons are also included in the scheme. Such works will be taking place in an area that is highly sensitive for archaeological remains both those that are found as buried archaeological landscapes and others that are extant as earthworks and built heritage. Other remains will be found in marine and intertidal areas and may include wrecks and structures as well as submerged sites.

At an early stage KCC advised that a thorough study is needed to establish a detailed baseline and understand the high significance of the archaeology of the area. This would need to be supported by survey and evaluation targeted at the potential impacts of the scheme including areas of potential temporary and enabling works. As a principle KCC encouraged minimising the areas of land take for construction works and careful siting of the routes of cables to avoid significant heritage assets.

**Assessment and Survey**

In response to our advice, National Grid have undertaken detailed desk-based studies, field survey, archaeological monitoring of geotechnical works and evaluation trenching of the Onshore scheme in Kent.

These studies have informed the application and the Cultural Heritage chapter of the Environmental Statement (ES Part 3 Kent Chapter 3 APP-063) and are reported in the following appendices to the ES:

- Cultural Heritage Baseline Report – ES Appendix 3.3.A to C (APP-161 to 163)
- Geophysical Survey Report - ES Appendix 3.3.D (APP-164)
- Aerial Photography & LiDAR Report - ES Appendix 3.3.E (APP-165)
- Archaeological Evaluation Trial Trenching Report (Draft) - ES Appendix 3.3.F (APP-166)
- Geoarchaeological Desk based Assessment - ES Appendix 3.3.G (APP-167)

KCC Archaeologists and Historic England have inputted into the design of the survey, monitoring and trenching works, have monitored the trenching and reviewed the results of the works.

Geophysical survey was undertaken by Headland Archaeology in two phases, the main part in 2023 and an additional field following trenching in 2024. The survey covers most of the scheme area to the west of St Augustine's golf course. This area covers both the reclaimed marshlands of the former Wantsum Sea Channel and the more elevated land of Cottington Hill and the Ebbsfleet Peninsula. Previous works in this area, in particular for the East Kent Access road had confirmed the presence of extensive and complex multi-period archaeological remains including the remains of a substantial Middle – Late Iron Age / Roman enclosure that may have been constructed during Caesar's landings and later during the Claudian invasion. Other remains included Early Bronze Age funerary monuments, Bronze Age, Iron Age and Roman trackways, enclosures and settlement burial sites. Medieval remains had also been recorded in the area.

The geophysical survey has been effective in identifying widespread buried landscapes over large parts of the survey area on Cottington Hill and the Ebbsfleet Peninsula. Figure 14 of the report (APP-164) shows the general layout with the result of the East Kent Access Road excavations also plotted. Deeper overburden deposits in the eastern half of the eastern field masked results over much of that area and to the north of the area surveyed.

Three areas of particularly complex and significant archaeology were identified:

- Multi-period enclosures and trackways immediately east of Richborough Way
- The large Iron Age / Roman enclosure focused around Ebbsfleet Hill to the west of Richborough Way. A number of what appear to be earlier, Bronze Age enclosures extend north from that enclosure.

- A series of large circular monuments, Bronze Age ring ditches, west of Ebbsfleet Lane North. These are sited on the ridge of a shallow valley that separates them from the enclosures.

Geophysical survey in the marshland areas did not reveal any significant archaeology as remains would largely be expected to lie deeply buried beneath the alluvial deposits there. Earthworks remains and the remains of features associated with the reclamation and use of the land following could survive in upper deposits.

Using the results of the desk-based studies and the geophysical survey a programme of targeted evaluation trenching was undertaken to further assess the features revealed and confirm if additional archaeology is present in areas that may be impacted by the scheme. The evaluation trenching, undertaken by Oxford Archaeology in 2024, involved the excavation of 165 trenches across 12 fields on the Ebbsfleet Peninsula / Cottington Hill and the former Wantsum Channel. The results are presented in a draft report submitted as Appendix F to the Environmental Statement (APP-166) and the layout of trenching with previous results and topography is best seen on Figure 2 in that report.

On the Ebbsfleet Peninsula / Cottington Hill the trenching confirmed the features seen on the geophysical and additional features including in areas where deeper sediments lie, masking the geophysics results. The evaluation confirmed the presence of the Bronze Age barrow cemetery; a possible late Bronze Age mortuary enclosure associated with multiple burials; extensive later prehistoric and Romano-British enclosures, boundaries, and routeways; and buried soils and medieval settlement traces near the former Wantsum Channel shoreline. The trenching of the reclaimed marshlands of the former Wantsum Channel extended only through the upper part of the alluvial sequence and identified only water channels that were detected by the geophysical survey or seen on historic mapping.

The deeper deposits in the former Wantsum Channel are being assessed through a programme of geoarchaeological assessment and specialist monitoring of geotechnical test pits and boreholes. An initial modelling of the results derived from existing borehole records and the monitopring of initial geotechnical works is presented in the Geoarchaeological Desk Based Assessment (APP-167). This assessment has been found to have limitations due to the data available and the method of initial monitoring. This is now being addressed through a further phase of monitoring geotechnical works and will provide a better resolution of the deep geoarchaeological deposits that will be affected by the construction of the substation and convertor station.

**Archaeology and the scheme development**

Taking account of the results of the desk-based studies, survey and evaluation the KCC Archaeologist has been engaged in detailed discussions with National Grid's archaeological consultants (AECOM) and design team to minimise the impacts of the scheme on archaeology and ensure that the most significant archaeology is avoided by the scheme. Significant design changes have included relocation of working compounds from the fields to the west of Ebbsfleet Lane North which would have had a widespread impact on archaeology in that field including the known Bronze Age barrow cemetery. The very

significant series of Bronze Age, Iron Age and Roman enclosures within the southern part of the field to the west of Ebbsfleet Lane will also be avoided by the scheme. The impacts within the fields between Ebbsfleet Lane and the former marsh land will be confined to a corridor that falls into a shallow valley running between the Bronze Age enclosures and the barrow cemetery. This corridor appears to be the line of least resistance in terms of the archaeology through the field and while archaeology will still be affected it is less significant than other areas of the field.

Discussions are ongoing to minimise impacts of the scheme further including the extent and location of compounds and Horizonal Directional Drilling (HDD) reception pits to the east of Ebbsfleet Lane and to the east of Richborough Way. In this area there will be impacts on archaeology from the HDD reception points and the construction of compounds those these are to be located in areas to avoid the most significant archaeology on the immediate east side of Richborough Way. Large areas of the field to the east of Richborough Way include activities that can be managed to avoid disturbance of the archaeology. Areas of compound and HDD reception pits etc may impact on archaeological remains but on present evidence of lesser significance than areas which are now being avoided.

Current proposals also include the location of a compound at Lord of the Manor which falls within a field that contains a Neolithic causewayed enclosure albeit the proposed compound is mainly located over deeper valley deposits and in an area which may have been affected by previous works.

The impacts of the development proposals in the former Wantsum Channel are currently being assessed through further geoarchaeological monitoring and assessment. The development impacts will involve the deep piling for foundations for the substation and convertor station and for pylons through archaeological deposits that may lie at several metres deep within the infilled former valley, sea channel and reclaimed marshland. Shallower impacts in the area of the convertor station and substation are unlikely to affect significant archaeology.

The Wantsum Channel was reclaimed through a process of ‘inning’, construction of sea walls and drainage in medieval times by Canterbury’s monastic houses, the landowners at the time. One particular sea wall, the ‘Abbotts Wall’, will be crossed by a temporary service road for the scheme. Discussions are ongoing to assess and minimise any impact on remains of the earthwork which may have already been disturbed in the vicinity of the proposed service road.

**Archaeological Mitigation**

The plans currently presented (PDA-006, 2.3 (B) Land Plans Part 2 and APP-039) broadly reflects the adjustments that have been made to reduce the impact on the scheme on archaeology. The exact siting and extent of works within the areas shown should be refined taking account of the archaeology. In particular it will be important to avoid impacts on the Bronze Age barrow cemetery and multiperiod enclosures to the west of Ebbsfleet land and the archaeology immediately to the east of Richborough Way including the late Bronze Age

mortuary enclosure. Current discussion indicates that preservation of these will be reflected in the design of the scheme and its construction works.

A draft Outline Onshore Overarching Written Scheme of Investigation (APP-344) has been provided in the application documents. This is presently being updated following feedback from the KCC archaeologist and will be developed further in light of ongoing assessment, monitoring and changes to the design of the scheme.

As well as measures to preserve archaeology that will be embedded in the final design and methods of construction of the scheme a programme of further archaeological investigation and recording will be needed where archaeological remains are to be affected. The KCC Archaeologist will continue to work closely with National Grid to develop a suitable scheme of archaeological mitigation.

**Setting of Archaeological Heritage Assets**

Historic England are leading on advice with respect to the impacts of the scheme on the setting of the Richborough Scheduled Monument which overlooks the former Wantsum Channel where the visual impacts of the construction of the Convertor Station and Substation and additional pylons will be visible from the monument. We note the assessment set out in 3.9.63 to 3.9.72 in the Environmental Statement but defer to Historic England's position on the magnitude of effect from the scheme.

In addition to the impact on Richborough KCC archaeologists and Historic England also requested that the setting of the multi-period remains at Ebbsfleet Hill on the Ebbsfleet Peninsula be assessed. We note the assessment that is set out in 3.9.73 to 3.9.74 in the Environmental Statement.

The enclosures in this area, as noted in the assessment did command a view over the former Wantsum Channel and the relationship of the archaeology, and in particular the defensive enclosure is significant to the archaeological assets. We acknowledge that the former coastal setting has now changed but the current marshland defines the location of the former sea channel and that is readily appreciable from the enclosure sites. Although the archaeological remains of the enclosure and its surrounds are buried, a visitor to the site can appreciate the landform and the marsh land (representing the former Wantsum Channel). We agree the remains should be considered of high value and are nationally important. Visualisations have been provided in ES 6.4.3.3 that illustrate the present and proposed views in summer and winter from the woodland at Ebbsfleet Lane (Viewpoint H3) and from Ebbsfleet Lane (Viewpoint H4). H3 represents the view from the enclosures, and the proposed substation and convertor station will be prominent and dominant in the views from the enclosure. The wider channel landscape will be still visible, as will Weatherlees Hill, a small island in the channel which may have provided a sheltered arm for the proposed harbour in this area. H4 represents the view from the lane towards the enclosure focused around Ebbsfleet Hill. The hill is still visible as is Weatherlees hill but the openness of views across the mouth of the former channel will be lost by the prominent building. While we agree that visitors will still be able to understand the asset and appreciate the relationship of the asset to the landscape, we are of the view that the visual aspects of the setting have a

greater interest to its significance than is considered in the assessment. Given the prominence of the proposed buildings in the views at Ebbsfleet Lane the magnitude of impact is in our view greater than negligible and given the value of the heritage could be considered a moderate adverse effect. We note that the montage's are produced using maximum envelope for the structures and understand that additional visualisations are being developed to illustrate the proposed building and its colour scheme.

**Offshore Scheme**

The lead with respect to the impact of the scheme on marine heritage will be with Historic England's Marine Planning Unit as it falls below the Mean Low Water Mark. Currently the intertidal area covered by Kent County Council's archaeological team will not be affected as the proposed marine cable will be is to be bored underground and emerges to the east of Richborough Way within the onshore scheme considered above (See Indicative General Arrangement Plans APP-039).

## Conclusion

KCC will continue to engage positively with the applicant and the Examining Authority as the examination advances and trusts that the information provided in this Local Impact Report will be considered and acted upon as the Sea Link project progresses.