**Appendix 1**

**WKN/K3 DCO – Habitats Regulations Assessment Screening Matrices**

Note that Construction below refers to WKN only. Construction effects of the K3 Proposed Development were addressed in the 2010 ES with a conclusion of no significant effect/no adverse effect on integrity.

Operation and Decommissioning are for both WKN Proposed Development and the practical effect of the K3 with any separation noted in the supporting evidence.

**Matrix 1 – Screening of Likely Significant Effects: The Swale SPA**

| **Name of European Site** | **The Swale Special Protection Area** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| **EU Code** | UK9012011 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **Distance to Proposal site** | 160 m | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **European site features** | Direct loss or damage of habitats used by interest species | | | Change in Habitat Management Regime | | | Loss of future space to allow for managed realignment | | | Urbanisation | | | Air quality - dust | | | Air quality - emissions | | | Hydrological Changes | | | Water quality | | | Disturbance | | | Introduction or spread of non-native invasive species | | | In-combination | | |
| | *C* | *O* | *D* | *C* | *O* | *D* | *C* | *O* | *D* | *C* | *O* | *D* | *C* | *O* | *D* | *C* | *O* | *D* | *C* | *O* | *D* | *C* | *O* | *D* | *C* | *O* | *D* | *C* | *O* | *D* | *C* | *O* | *D* |
| Migratory Wintering species regularly occurring in internati | ×a | × a | × a | × b | × b | × b | × c | × c | × c | × d | × d | × d | ✓ e | × f | ✓ e | × g | × h | × g | × i | × i | × i | ✓ j | ✓ j | × j | ✓ k | ✓ k | × k | × l | × l | × l | × m | × m | × m |

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| onally-important numbers over winter – **Dark bellied brent geese** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Migratory Wintering species regularly occurring in internationally-important numbers over winter – **Dunlin** | ×a | × a | × a | × b | × b | × b | × c | × c | × c | × d | × d | × d | ✓ e | × f | ✓ e | × g | × h | × g | × i | × i | × i | ✓ j | ✓ j | × j | ✓ k | ✓ k | × k | × l | × l | × l | × m | × m | × m |
| Regularly supporting over 20,000 waterfowl over winter | ×a | × a | × a | × b | × b | × b | × c | × c | × c | × d | × d | × d | ✓ e | × f | ✓ e | × g | × h | × g | × i | × i | × i | ✓ j | ✓ j | × j | ✓ k | ✓ k | × k | × l | × l | × l | × m | × m | × m |
| Diverse assemblage of | ×a | × a | × a | × b | × b | × b | × c | × c | × c | × d | × d | × d | ✓ e | × f | ✓ e | × g | × h | × g | × i | × i | × i | ✓ j | ✓ j | × j | ✓ k | ✓ k | × k | × l | × l | × l | × m | × m | × m |

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| breeding birds | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

**Evidence supporting conclusions**

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|---|---|
| **a.** | No likely significant effect from direct loss of habitat on any interest feature. None of the surveys undertaken on site as being used by interest feature species. Therefore, it does not support habitat suitable for any citation species (ref HRAR para 5.21 – 5.28). |
| **b.** | Given the distance from the SPA, the DCO application will result in no change to current management regimes of any supporting habitat of The Swale SPA during either the construction of WKN or the operation/demolition of either WKN or K3 (ref HRAR para 5.29 – 5.32). |
| **c.** | The site comprises mostly hard standing and bare ground, with ruderal vegetation and dense scrub, it is circa 160 m from The Swale SPA. No loss of land for managed realignment is therefore expected (ref HRAR para 5.33 – 5.35). |
| **d.** | The Proposal Site is 160 m from The Swale SPA and set against a backdrop of existing industrial buildings. No likely significant effect on any interest feature from increased urbanisation is therefore predicted (ref HRAR para 5.36 – 5.40). |
| **e.** | Based on studies elsewhere, it is anticipated that the majority of dust generated during construction/demolition would be deposited in the area immediately surrounding the source (up to 50 metres away) and that no change in level of exposure is expected beyond 300 metres from the site. The boundary of the Swale SPA site is 160 metres east of the proposal site and therefore outside the area potentially most affected. However, likely significant effects cannot be excluded without further assessment and/or application of mitigation as necessary (ref HRAR para 5.43-5.45).. |
| **f.** | No dust-generating activities are associated with the operational phase of K3 / WKN. Therefore, no likely significant effect is predicted on any interest feature. |
| **g.** | All emissions arising from construction traffic are either below the necessary EQS, the Process Contribution is <1% of the EQS or the habitats are not considered sensitive to changes in air quality. Therefore, no likely significant effect is predicted from traffic emissions during construction (ref HRAR para 5.43-5.56). |

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| **h.** | No likely significant effects from operational emissions are predicted on any interest feature or supporting habitat as all process contributions are <1% and/or the predicted environmental concentration is less than the Environmental Quality Standard and/or the features are not considered sensitive (ref HRAR para 5.57 – 5.62). |
| **i.** | The first drainage system will collect clean surface water runoff (for example from building roof areas) and store it in the lagoon. The second drainage system will collect 'dirty' runoff (for example from the FGT area) and store it in the 'dirty' water tank. This 'dirty' water will then be used in the process as required (for example for ash quenching). The clean water will be stored in the lagoon and used to top up the 'dirty' water tank. If the lagoon has reached the maximum acceptable capacity it will be discharged at a controlled rate into the Swale. Therefore, no hydrological changes to terrestrial areas of The Swale SPA will occur as a result of the proposed development (ref HRAR para 5.66-5.69). |
| **j.** | In the absence of mitigation, likely significant effects on The Swale SPA due to changes in water quality cannot be excluded due to the relatively close proximity of the nearest boundary to the proposed site (ref HRAR para 5.63-5.65).. |
| **k.** | Because of the relative complexity of these issues, and their ability to have impacts on waterbirds/breeding marsh harrier within several hundred metres depending on the nature of the activity and the receptors, likely significant effects due to disturbance cannot be excluded at The Swale SPA without further assessment and/or application of mitigation as necessary (ref HRAR para 5.70-5.71).. |
| **l.** | The only non-native invasive species currently known to be in the area, though not on the proposal site, is Japanese Knotweed. No importation of material is required to build WKN and no final planting is proposed that could inadvertently import non-native invasive to site, as such no likely significant effect is predicted (ref HRAR para 5.72 – 5.73). |
| **m.** | No in-combination effects are considered likely due to a lack of overlapping pathways (ref HRAR Section 7). |

**Matrix 2 – Screening of Likely Significant Effects: The Swale Ramsar**

| **Name of European Site** | **The Swale Ramsar** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| **EU Code** | N/A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **Distance to Proposal site** | 160 m | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Direct loss or damage of habitats used by interest species | | | Change in Habitat Management Regime | | | Loss of future space to allow for managed realignment | | | Urbanisation | | | Air quality - dust | | | Air quality - emissions | | | Hydrological Changes | | | Water quality | | | Disturbance | | | Introduction or spread of non-native invasive species | | | In-combination | | |
| **European site features** | *C* | *O* | *D* | *C* | *O* | *D* | *C* | *O* | *D* | *C* | *O* | *D* | *C* | *O* | *D* | *C* | *O* | *D* | *C* | *O* | *D* | *C* | *O* | *D* | *C* | *O* | *D* | *C* | *O* | *D* | *C* | *O* | *D* |
| Ramsar Criterion 2 - **Nationally rare and scarce plant species** | × a | × a | × a | × b | × b | × b | × c | × c | × c | × d | × d | × d | ✓ e | × f | ✓ e | × g | × h | × g | × i | × i | × i | ✓ j | ✓ j | × j | ✓ k | ✓ k | × k | × l | × l | × l | × m | × m | × m |
| Ramsar Criterion 2 - **Red Data Book invertebrates** | × a | × a | × a | × b | × b | × b | × c | × c | × c | × d | × d | × d | ✓ e | × f | ✓ e | × g | × h | × g | × i | × i | × i | ✓ j | ✓ j | × j | ✓ k | ✓ k | × k | × l | × l | × l | × m | × m | × m |
| Ramsar Criterion 5 – **Overwinter assemblage** | × a | × a | × a | × b | × b | × b | × c | × c | × c | × d | × d | × d | ✓ e | × f | ✓ e | × g | × h | × g | × i | × i | × i | ✓ j | ✓ j | × j | ✓ k | ✓ k | × k | × l | × l | × l | × m | × m | × m |

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| **of international importance** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Ramsar Criterion 6 - Numbers of International Importance during spring/autumn passage **Redshank** | ✕ a | ✕ a | ✕ a | ✕ b | ✕ b | ✕ b | ✕ c | ✕ c | ✕ c | ✕ d | ✕ d | ✕ d | ✓ e | ✕ f | ✓ e | ✕ g | ✕ h | ✕ g | ✕ i | ✕ i | ✕ i | ✓ j | ✓ j | ✕ j | ✓ k | ✓ k | ✕ k | ✕ l | ✕ l | ✕ l | ✕ m | ✕ m | ✕ m |
| Ramsar Criterion 6 - Regularly Wintering in Numbers of International Importance - **Dark bellied brent geese** | ✕ a | ✕ a | ✕ a | ✕ b | ✕ b | ✕ b | ✕ c | ✕ c | ✕ c | ✕ d | ✕ d | ✕ d | ✓ e | ✕ f | ✓ e | ✕ g | ✕ h | ✕ g | ✕ i | ✕ i | ✕ i | ✓ j | ✓ j | ✕ j | ✓ k | ✓ k | ✕ k | ✕ l | ✕ l | ✕ l | ✕ m | ✕ m | ✕ m |
| Ramsar Criterion 6 - Regularly Wintering in Numbers of International Importance - **Grey Plover** | ✕ a | ✕ a | ✕ a | ✕ b | ✕ b | ✕ b | ✕ c | ✕ c | ✕ c | ✕ d | ✕ d | ✕ d | ✓ e | ✕ f | ✓ e | ✕ g | ✕ h | ✕ g | ✕ i | ✕ i | ✕ i | ✓ j | ✓ j | ✕ j | ✓ k | ✓ k | ✕ k | ✕ l | ✕ l | ✕ l | ✕ m | ✕ m | ✕ m |

**Evidence supporting conclusions**

| | |
|---|---|
| **a.** | No likely significant effect from direct loss of habitat on any interest feature. None of the surveys undertaken on site have identified the site as being used by interest feature species. Therefore, it does not support habitat suitable for any citation species (ref HRAR para 5.21 – 5.28). |
| **b.** | Given the distance from the Ramsar, the DCO application will result in no change to current management regimes of any supporting habitat of The Swale Ramsar during either the construction of WKN or the operation/demolition of either WKN or K3 (ref HRAR para 5.29 – 5.32). |
| **c.** | The site comprises mostly hard standing and bare ground, with ruderal vegetation and dense scrub, it is circa 160 m from The Swale Ramsar. No loss of land for managed realignment is therefore expected (ref HRAR para 5.33 – 5.35). |
| **d.** | The Proposal Site is 160 m from The Swale Ramsar and set against a backdrop of existing industrial buildings. No likely significant effect on any interest feature from increased urbanisation is therefore predicted (ref HRAR para 5.36 – 5.40). |
| **e.** | Based on studies elsewhere, it is anticipated that the majority of dust generated during construction/demolition would be deposited in the area immediately surrounding the source (up to 50 metres away) and that no change in level of exposure is expected beyond 300 metres from the site. The boundary of the Swale Ramsar site is 160 metres east of the proposal site and therefore outside the area potentially most affected. However, likely significant effects cannot be excluded without further assessment and/or application of mitigation as necessary (ref HRAR para 5.44). . |
| **f.** | No dust-generating activities are associated with the operational phase of K3 / WKN. Therefore, no likely significant effect is predicted on any interest feature. |
| **g.** | All emissions arising from construction traffic are either below the necessary EQS, the Process Contribution is <1% of the EQS or the habitats are not considered sensitive to changes in air quality. Therefore, no likely significant effect is predicted from traffic emissions during construction (ref HRAR para 5.46-5.47)). |
| **h.** | No likely significant effects from operational emissions are predicted on any interest feature or supporting habitat as all process contributions are <1% and/or the predicted environmental concentration is less than the Environmental Quality Standard and/or the features are not considered sensitive (ref HRAR para 5.57 – 5.62). |
| **i.** | The first drainage system will collect clean surface water runoff (for example from building roof areas) and store it in the lagoon. The second drainage system will collect 'dirty' runoff (for example from the FGT area) and store it in the 'dirty' water tank. This 'dirty' water will then be used in the process as required (for example for ash quenching). The clean water will be stored in the lagoon and used to top up the 'dirty' water tank. If the lagoon has reached the maximum acceptable capacity it will be discharged at a controlled rate into the Swale. Therefore, no hydrological changes to terrestrial areas of The Swale Ramsar will occur as a result of the proposed development (ref HRAR para 5.66-5.69). |

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| **j.** | In the absence of mitigation, likely significant effects on The Swale Ramsar due to changes in water quality cannot be excluded due to the relatively close proximity of the nearest boundary to the proposed site (ref HRAR para 5.63-6.65)... |
| **k.** | Because of the relative complexity of these issues, and their ability to have impacts on waterbirds/breeding marsh harrier within several hundred metres depending on the nature of the activity and the receptors, likely significant effects due to disturbance cannot be excluded at The Swale Ramsar without further assessment and/or application of mitigation as necessary (ref HRAR para 5.70-5.71). |
| **l.** | The only non-native invasive species currently known to be in the area, though not on the proposal site, is Japanese Knotweed. No importation of material is required to build WKN and no final planting is proposed that could inadvertently import non-native invasive to site, as such no likely significant effect is predicted (ref HRAR para 5.72 – 5.73). |
| **m.** | No in-combination effects are considered likely due to a lack of overlapping pathways (ref HRAR Section 7). |

**Matrix 3 – Screening of Likely Significant Effects: Medway Estuary and Marshes SPA**

| **Name of European Site** | **Medway Estuary and Marshes SPA** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| **EU Code** | UK9012031 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **Distance to Proposal site** | 2.1 km | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **European site features** | Direct loss or damage of habitats used by interest species | | | Change in Habitat Management Regime | | | Loss of future space to allow for managed realignment | | | Urbanisation | | | Air quality - dust | | | Air quality – emissions | | | Hydrological Changes | | | Water quality | | | Disturbance | | | Introduction or spread of non-native invasive species | | | In-combination | | |
| | *C* | *O* | *D* | *C* | *O* | *D* | *C* | *O* | *D* | *C* | *O* | *D* | *C* | *O* | *D* | *C* | *O* | *D* | *C* | *O* | *D* | *C* | *O* | *D* | *C* | *O* | *D* | *C* | *O* | *D* | *C* | *O* | *D* | | | |

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| Regularly supporting more than 1% of the GB breeding population of an Annex 1 species in summer – **Avocet** | × a | × a | × a | × b | × b | × b | × c | × c | × c | × d | × d | × d | × e | × e | × e | × f | × g | × f | × h | × h | × h | × i | × i | × i | × j | × j | × j | × k | × k | × k | × l | × l | × l |
| Regularly supporting more than 1% of the GB breeding population of an Annex 1 species in summer – **Little tern** | × a | × a | × a | × b | × b | × b | × c | × c | × c | × d | × d | × d | × e | × e | × e | × f | × g | × f | × h | × h | × h | × i | × i | × i | × j | × j | × j | × k | × k | × k | × l | × l | × l |
| Annex 1 Species Regularly | × a | × a | × a | × b | × b | × b | × c | × c | × c | × d | × d | × d | × e | × e | × e | × f | × g | × f | × h | × h | × h | × i | × i | × i | × j | × j | × j | × k | × k | × k | × l | × l | × l |

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| Wintering in Numbers of European Importance - **Avocet** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Annex 1 Species Regularly on Passage in Numbers of European Importance – **Grey Plover** | × a | × a | × a | × b | × b | × b | × c | × c | × c | × d | × d | × d | × e | × e | × e | × f | × g | × f | × h | × h | × h | × i | × i | × i | × j | × j | × j | × k | × k | × k | × l | × l | × l |
| Annex 1 Species Regularly on Passage in Numbers of European Importance – **Common Redshank** | × a | × a | × a | × b | × b | × b | × c | × c | × c | × d | × d | × d | × e | × e | × e | × f | × g | × f | × h | × h | × h | × i | × i | × i | × j | × j | × j | × k | × k | × k | × l | × l | × l |
| Migratory Species Regularl | × a | × a | × a | × b | × b | × b | × c | × c | × c | × d | × d | × d | × e | × e | × e | × f | × g | × f | × h | × h | × h | × i | × i | × i | × j | × j | × j | × k | × k | × k | × l | × l | × l |

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| y Wintering in Numbers of European Importance - **Dark-bellied Brent Goose** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Migratory Species Regularly Wintering in Numbers of European Importance - **Shelduck** | × a | × a | × a | × b | × b | × b | × c | × c | × c | × d | × d | × d | × e | × e | × e | × f | × g | × f | × h | × h | × h | × i | × i | × i | × j | × j | × j | × k | × k | × k | × l | × l | × l |
| Migratory Species Regularly Wintering in Numbers of European Importance - **Pintail** | × a | × a | × a | × b | × b | × b | × c | × c | × c | × d | × d | × d | × e | × e | × e | × f | × g | × f | × h | × h | × h | × i | × i | × i | × j | × j | × j | × k | × k | × k | × l | × l | × l |

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| Migratory Species Regularly Wintering in Numbers of European Importance - **Ringed plover** | × a | × a | × a | × b | × b | × b | × c | × c | × c | × d | × d | × d | × e | × e | × e | × f | × g | × f | × h | × h | × h | × i | × i | × i | × j | × j | × j | × k | × k | × k | × l | × l | × l | | | | |
| Migratory Species Regularly Wintering in Numbers of European Importance - **Knot** | × a | × a | × a | × b | × b | × b | × c | × c | × c | × d | × d | × d | × e | × e | × e | × f | × g | × f | × h | × h | × h | × i | × i | × i | × j | × j | × j | × k | × k | × k | × l | × l | × l | | | | |
| Migratory Species Regularly Wintering in Numbers of European Importa | × a | × a | × a | × b | × b | × b | × c | × c | × c | × d | × d | × d | × e | × e | × e | × f | × g | × f | × h | × h | × h | × i | × i | × i | × j | × j | × j | × k | × k | × k | × l | × l | × l | | | | |

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| nce - **Dunlin** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Regularly supports in winter a diverse assemblage of wintering species | × a | × a | × a | × b | × b | × b | × c | × c | × c | × d | × d | × d | × e | × e | × e | × f | × g | × f | × h | × h | × h | × i | × i | × i | × j | × j | × j | × k | × k | × k | × l | × l | × l |
| Regularly supports over 20,000 waterfowl | × a | × a | × a | × b | × b | × b | × c | × c | × c | × d | × d | × d | × e | × e | × e | × f | × g | × f | × h | × h | × h | × i | × i | × i | × j | × j | × j | × k | × k | × k | × l | × l | × l |
| Diverse assemblage of breeding migratory waterfowl | × a | × a | × a | × b | × b | × b | × c | × c | × c | × d | × d | × d | × e | × e | × e | × f | × g | × f | × h | × h | × h | × i | × i | × i | × j | × j | × j | × k | × k | × k | × l | × l | × l |

**Evidence supporting conclusions**

| | |
|---|---|
| **a.** | No likely significant effect from direct loss of habitat on any interest feature. None of the surveys undertaken on site have identified the site as being used by interest feature species. Therefore, it does not support habitat suitable for any citation species (ref HRAR para 5.21 – 5.28). |
| **b.** | Given the distance from the SPA, the DCO application will result in no change to current management regimes of any supporting habitat of the SPA during either the construction of WKN or the operation/demolition of either WKN or K3 (ref HRAR para 5.29 – 5.32)). |
| **c.** | The site is already developed land and >2 km from the Medway Estuary & Marshes SPA. No loss of land for managed realignment is therefore expected (ref HRAR para 5.33 – 5.35). |
| **d.** | The Proposal Site is 2.1 km from the Medway Estuary and Marshes SPA and set against a backdrop of existing industrial buildings. No likely significant effect on any interest feature from increased urbanisation is therefore predicted (ref HRAR para 5.36 – 5.40). |
| **e.** | Based on studies elsewhere, it is anticipated that the majority of dust generated would be deposited in the area immediately surrounding the source (up to 50 metres away) and that no change in level of exposure is expected beyond 300 metres from the site. The boundary of the SPA site is over 2 km to the north of the proposal site and therefore outside the area potentially affected by any dust. Therefore, no likely significant effect is predicted on any interest feature (ref HRAR para 5.43 – 5.45).. |
| **f.** | All emissions arising from construction traffic are either below the necessary EQS, the Process Contribution is <1% of the EQS or the habitats are not considered sensitive to changes in air quality. Therefore, no likely significant effect is predicted from traffic emissions during construction (ref HRAR para 5.46-5.57). |
| **g.** | No likely significant effects from operational emissions are predicted on any interest feature or supporting habitat as all process contributions are <1% and/or the predicted environmental concentration is less than the Environmental Quality Standard (ref HRAR para 5.57 – 5.62). |
| **h.** | The first drainage system will collect clean surface water runoff (for example from building roof areas) and store it in the lagoon. The second drainage system will collect 'dirty' runoff (for example from the FGT area) and store it in the 'dirty' water tank. This 'dirty' water will then be used in the process as required (for example for ash quenching). The clean water will be stored in the lagoon and used to top up the 'dirty' water tank. If the lagoon has reached the maximum acceptable capacity it will be discharged at a controlled rate into the Swale. Therefore, no hydrological changes to terrestrial areas of the Medway Estuary & Marshes SPA or area which supports a SPA species will occur as a result of the proposed development (ref HRAR para 5.66- 5.69). |
| **i.** | Given the distance between the proposal site and the SPA, no changes to water quality are anticipated (ref HRAR para 5.63-5.65). |
| **j.** | Given the distance between the proposal site and the SPA, no likely significant effect on any interest feature is predicted from disturbance (ref HRAR para 5.70-5.71)..). |
| **k.** | The only non-native invasive species currently known to be in the area, though not on the Proposal site, is Japanese Knotweed. No importation of material is required to build WKN and no final planting is proposed that could inadvertently import non-native invasive to site, as such no likely significant effect is predicted (ref HRAR para 5.72 – 5.73). |
| **l.** | Given the distance between the proposal site and the Ramsar, no in-combination effects are anticipated (ref HRAR Chapter 7). |

**Matrix 4 – Screening of Likely Significant Effects: Medway Estuary and Marshes Ramsar**

| **Name of European Site** | **Medway Estuary and Marshes Ramsar** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| **EU Code** | N/A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **Distance to Proposal site** | 2.1 km | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **European site features** | Direct loss or damage of habitats used by interest species | | | Change in Habitat Management Regime | | | Loss of future space to allow for managed realignment | | | Urbanisation | | | Air quality - dust | | | Air quality – emissions | | | Hydrological Changes | | | Water quality | | | Disturbance | | | Introduction or spread of non-native invasive species | | | In-combination | | |
| | *C* | *O* | *D* | *C* | *O* | *D* | *C* | *O* | *D* | *C* | *O* | *D* | *C* | *O* | *D* | *C* | *O* | *D* | *C* | *O* | *D* | *C* | *O* | *D* | *C* | *O* | *D* | *C* | *O* | *D* | *C* | *O* | *D* |
| Ramsar Criterion 2 - **Nationally rare and scarce plant species** | × a | × a | × a | × b | × b | × b | × c | × c | × c | × d | × d | × d | × e | × e | × e | × f | × g | × f | × h | × h | × h | × i | × i | × i | × j | × j | × j | × k | × k | × k | × l | × l | × l |
| Ramsar Criterion 2 - **Red Data Book invertebrates** | × a | × a | × a | × b | × b | × b | × c | × c | × c | × d | × d | × d | × e | × e | × e | × f | × g | × f | × h | × h | × h | × i | × i | × i | × j | × j | × j | × k | × k | × k | × l | × l | × l |

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| Ramsar Criterion 5 – **Overwinter assemblage of international importance** | × a | × a | × a | × b | × b | × b | × c | × c | × c | × d | × d | × d | × e | × e | × e | × f | × g | × f | × h | × h | × h | × i | × i | × i | × j | × j | × j | × k | × k | × k | × l | × l | × l | | | | |
| Ramsar Criterion 6 - Regularly on Passage in Numbers of International Importance – **Grey Plover** | × a | × a | × a | × b | × b | × b | × c | × c | × c | × d | × d | × d | × e | × e | × e | × f | × g | × f | × h | × h | × h | × i | × i | × i | × j | × j | × j | × k | × k | × k | × l | × l | × l | | | | |
| Ramsar Criterion 6 - Species Regularly on Passage in Numbers of International Importance – **Common Redshank** | × a | × a | × a | × b | × b | × b | × c | × c | × c | × d | × d | × d | × e | × e | × e | × f | × g | × f | × h | × h | × h | × i | × i | × i | × j | × j | × j | × k | × k | × k | × l | × l | × l | | | | |

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| Ramsar Criterion 6 - Regularly Wintering in Numbers of International Importance - **Dark-bellied Brent Goose** | × a | × a | × a | × b | × b | × b | × c | × c | × c | × d | × d | × d | × e | × e | × e | × f | × g | × f | × h | × h | × h | × i | × i | × i | × j | × j | × j | × k | × k | × k | × l | × l | × l |
| Ramsar Criterion 6 - Regularly Wintering in Numbers of International Importance - **Shelduck** | × a | × a | × a | × b | × b | × b | × c | × c | × c | × d | × d | × d | × e | × e | × e | × f | × g | × f | × h | × h | × h | × i | × i | × i | × j | × j | × j | × k | × k | × k | × l | × l | × l |
| Ramsar Criterion 6 - Regularly Wintering in Numbers of International Importance – **Pintail** | × a | × a | × a | × b | × b | × b | × c | × c | × c | × d | × d | × d | × e | × e | × e | × f | × g | × f | × h | × h | × h | × i | × i | × i | × j | × j | × j | × k | × k | × k | × l | × l | × l |

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| Ramsar Criterion 6 - Regularly Wintering in Numbers of International Importance - **Ringed plover** | × a | × a | × a | × b | × b | × b | × c | × c | × c | × d | × d | × d | × e | × e | × e | × f | × g | × f | × h | × h | × h | × i | × i | × i | × j | × j | × j | × k | × k | × k | × l | × l | × l |
| Ramsar Criterion 6 - Regularly Wintering in Numbers of International Importance - **Knot** | × a | × a | × a | × b | × b | × b | × c | × c | × c | × d | × d | × d | × e | × e | × e | × f | × g | × f | × h | × h | × h | × i | × i | × i | × j | × j | × j | × k | × k | × k | × l | × l | × l |
| Ramsar Criterion 6 - Regularly Wintering in Numbers of International Importance - **Dunlin** | × a | × a | × a | × b | × b | × b | × c | × c | × c | × d | × d | × d | × e | × e | × e | × f | × g | × f | × h | × h | × h | × i | × i | × i | × j | × j | × j | × k | × k | × k | × l | × l | × l |

**Evidence supporting conclusions**

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|---|---|
| **a.** | No likely significant effect from direct loss of habitat on any interest feature. None of the surveys undertaken on site have identified the site as being used by interest feature species. Therefore, it does not support habitat suitable for any citation species (ref HRAR para 5.21 – 5.28). |
| **b.** | Given the distance from the Ramsar, the DCO application will result in no change to current management regimes of any supporting habitat of the Ramsar during either the construction of WKN or the operation/demolition of either WKN or K3 (ref HRAR para 5.29 – 5.32). |
| **c.** | The site is already developed land and >2 km from the Medway Estuary & Marshes Ramsar. No loss of land for managed realignment is therefore expected (ref HRAR para 5.33 – 5.35). |
| **d.** | The Proposal Site is 2.1 km from the Medway Estuary and Marshes Ramsar and set against a backdrop of existing industrial buildings. No likely significant effect on any interest feature from increased urbanisation is therefore predicted (ref HRAR para 5.36 – 5.40). |
| **e.** | Based on studies elsewhere, it is anticipated that the majority of dust generated would be deposited in the area immediately surrounding the source (up to 50 metres away) and that no change in level of exposure is expected beyond 300 metres from the site. The boundary of the Ramsar site is over 2 km to the north of the proposal site and therefore outside the area potentially affected by any dust. Therefore, no likely significant effect is predicted on any interest feature (ref HRAR para 5.43 – 5.45).. |
| **f.** | All emissions arising from construction traffic are either below the necessary EQS, the Process Contribution is <1% of the EQS or the habitats are not considered sensitive to changes in air quality. Therefore, no likely significant effect is predicted from traffic emissions during construction (ref HRAR para 5.46-5.47). |
| **g.** | No likely significant effects from operational emissions are predicted on any interest feature or supporting habitat as all process contributions are <1% and/or the predicted environmental concentration is less than the Environmental Quality Standard (ref HRAR para 5.57 – 5.62). |
| **h.** | The first drainage system will collect clean surface water runoff (for example from building roof areas) and store it in the lagoon. The second drainage system will collect 'dirty' runoff (for example from the FGT area) and store it in the 'dirty' water tank. This 'dirty' water will then be used in the process as required (for example for ash quenching). The clean water will be stored in the lagoon and used to top up the 'dirty' water tank. If the lagoon has reached the maximum acceptable capacity it will be discharged at a controlled rate into the Swale. Therefore, no hydrological changes to terrestrial areas of the Medway Estuary & Marshes Ramsar or area which supports a Ramsar species will occur as a result of the proposed development (ref HRAR para 5.66- 5.69). |
| **i.** | Given the distance between the proposal site and the Ramsar, no changes to water quality are anticipated (ref HRAR para 5.63-5.65). |
| **j.** | Given the distance between the proposal site and the Ramsar, no likely significant effect on any interest feature is predicted from disturbance (ref HRAR para 5.70-5.71). |
| **k.** | The only non-native invasive species currently known to be in the area, though not on the Proposal site, is Japanese Knotweed. No importation of material is required to build WKN and no final planting is proposed that could inadvertently import non-native invasive to site, as such no likely significant effect is predicted (ref HRAR para 5.72 – 5.73). |
| **l.** | Given the distance between the proposal site and the Ramsar, no in-combination effects are anticipated (ref HRAR Chapter 7). |

**Matrix 5 – Screening of Likely Significant Effects: Thames Estuary and Marshes SPA**

| **Name of European Site** | **Thames Estuary and Marshes SPA** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| **EU Code** | UK9012021 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **Distance to Proposal site** | 8.7 km | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **European site features** | Direct loss or damage of habitats used by interest species | | | Change in Habitat Management Regime | | | Loss of future space to allow for managed realignment | | | Urbanisation | | | Air quality – dust | | | Air quality - emissions | | | Hydrological Changes | | | Water quality | | | Disturbance | | | Introduction or spread of non-native invasive species | | | In-combination | | |
| | *C* | *O* | *D* | *C* | *O* | *D* | *C* | *O* | *D* | *C* | *O* | *D* | *C* | *O* | *D* | *C* | *O* | *D* | *C* | *O* | *D* | *C* | *O* | *D* | *C* | *O* | *D* | *C* | *O* | *D* | *C* | *O* | *D* |
| Annex 1 Species Regularly Wintering in Numbers of European Importance – **Avocet** | × a | × a | × a | × b | × b | × b | × c | × c | × c | × d | × d | × d | × e | × e | × e | × f | × g | × f | × h | × h | × h | × i | × i | × i | × j | × j | × j | × k | × k | × k | × l | × l | × l |

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| Annex 1 Species Regularly Wintering in Numbers of European Importance – **Hen harrier** | × a | × a | × a | × b | × b | × b | × c | × c | × c | × d | × d | × d | × e | × e | × e | × f | × g | × f | × h | × h | × h | × i | × i | × i | × j | × j | × j | × k | × k | × k | × l | × l | × l | | |
| Migratory species regularly occurring on passage – **Ringed plover** | × a | × a | × a | × b | × b | × b | × c | × c | × c | × d | × d | × d | × e | × e | × e | × f | × g | × f | × h | × h | × h | × i | × i | × i | × j | × j | × j | × k | × k | × k | × l | × l | × l | | |
| Migratory Species Regularly Wintering in Numbers of European Importance - **Dunlin** | × a | × a | × a | × b | × b | × b | × c | × c | × c | × d | × d | × d | × e | × e | × e | × f | × g | × f | × h | × h | × h | × i | × i | × i | × j | × j | × j | × k | × k | × k | × l | × l | × l | | |
| Migratory Species Regularly Wintering in | × a | × a | × a | × b | × b | × b | × c | × c | × c | × d | × d | × d | × e | × e | × e | × f | × g | × f | × h | × h | × h | × i | × i | × i | × j | × j | × j | × k | × k | × k | × l | × l | × l | | |

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| Numbers of European Importance - **Knot** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Migratory Species Regularly Wintering in Numbers of European Importance – **Black-tailed godwit** | × a | × a | × a | × b | × b | × b | × c | × c | × c | × d | × d | × d | × e | × e | × e | × f | × g | × f | × h | × h | × h | × i | × i | × i | × j | × j | × j | × k | × k | × k | × l | × l | × l | | |
| Migratory Species Regularly Wintering in Numbers of European Importance - **Redshank** | × a | × a | × a | × b | × b | × b | × c | × c | × c | × d | × d | × d | × e | × e | × e | × f | × g | × f | × h | × h | × h | × i | × i | × i | × j | × j | × j | × k | × k | × k | × l | × l | × l | | |
| Migratory Species Regularly Winterin | × a | × a | × a | × b | × b | × b | × c | × c | × c | × d | × d | × d | × e | × e | × e | × f | × g | × f | × h | × h | × h | × i | × i | × i | × j | × j | × j | × k | × k | × k | × l | × l | × l | | |

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| g in Numbers of European Importance - **Grey plover** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Assemblage regularly supporting over 20,000 waterfowl | × a | × a | × a | × b | × b | × b | × c | × c | × c | × d | × d | × d | × e | × e | × e | × f | × g | × f | × h | × h | × h | × i | × i | × i | × j | × j | × j | × k | × k | × k | × l | × l | × l |

**Evidence supporting conclusions**

| | |
|---|---|
| **a.** | No likely significant effect from direct loss of habitat on any interest feature. None of the surveys undertaken on site have identified the site as being used by interest feature species. Therefore, it does not support habitat suitable for any citation species (ref HRAR para ref HRAR para 5.21 – 5.28). |
| **b.** | Given the distance from the SPA, the DCO application will result in no change to current management regimes of any supporting habitat of the SPA during either the construction or operation of the plant (ref HRAR para 5.29 – 5.32). |
| **c.** | The site is already surrounded by developed land and 8.7 km from the Thames Estuary & Marshes SPA. No loss of land for managed realignment is therefore expected (ref HRAR para 5.33 – 5.35). |
| **d.** | The proposal site is 8.7 km from the Thames Estuary and Marshes SPA and set against a backdrop of existing industrial buildings. No likely significant effect on any interest feature from increased urbanisation is therefore predicted (ref HRAR para 5.36 – 5.40). |
| **e.** | Based on studies elsewhere, it is anticipated that the majority of dust generated during construction would be deposited in the area immediately surrounding the source (up to 50 metres away) and that no change in level of exposure is expected beyond 300 metres from the site. The boundary of the SPA site is 8.7 km to the north east of the proposal site and therefore outside the area potentially affected by any dust. Therefore, no likely significant effect is predicted on any interest feature (ref HRAR para 5.43 – 5.45).. |
| **f.** | Given the distance to the designated site (8.7 km), no effect from construction traffic emissions are predicted (ref HRAR para 5.46 - 5.47). |
| **g.** | No likely significant effects from operational emissions are predicted on any interest feature or supporting habitat as all process contributions are <1% and/or the predicted environmental concentration is less than the Environmental Quality Standard (ref HRAR para 5.57 – 5.62). |

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|---|---|
| **h.** | The first drainage system will collect clean surface water runoff (for example from building roof areas) and store it in the lagoon. The second drainage system will collect 'dirty' runoff (for example from the FGT area) and store it in the 'dirty' water tank. This 'dirty' water will then be used in the process as required (for example for ash quenching). The clean water will be stored in the lagoon and used to top up the 'dirty' water tank. If the lagoon has reached the maximum acceptable capacity it will be discharged at a controlled rate into the Swale. Therefore, no hydrological changes to terrestrial areas of the SPA or area which supports a SPA species will occur as a result of the proposed development (ref HRAR para 5.66- 5.69). |
| **i.** | Given the distance between the proposal site and the SPA, no changes to water quality are anticipated (ref HRAR para 5.63-5.65). |
| **j.** | Given the distance between the proposal site and the SPA, no likely significant effect on any interest feature is predicted from disturbance (ref HRAR para 5.70-5.71). |
| **k.** | The only non-native invasive species currently known to be in the area, though not on the Proposal site, is Japanese Knotweed. No importation of material is required to build WKN and no final planting is proposed that could inadvertently import non-native invasive to site, as such no likely significant effect is predicted (ref HRAR para 5.72 – 5.73). |
| **l.** | Given the distance between the proposal site and the SPA, no in-combination effects are anticipated (ref HRAR Chapter 7). |

**Matrix 6 – Screening of Likely Significant Effects: Thames Estuary and Marshes Ramsar**

| **Name of European Site** | **Thames Estuary and Marshes Ramsar** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **EU Code** | N/A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **Distance to Proposal site** | 8.7 km | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **European site features** | Direct loss or damage of habitats used by interest species | | | Change in Habitat Management Regime | | | Loss of future space to allow for managed realignment | | | Urbanisation | | | Air quality – dust | | | Air quality - emissions | | | Hydrological Changes | | | Water quality | | | Disturbance | | | Introduction or spread of non-native invasive species | | | In-combination | | |
| | *C* | *O* | *D* | *C* | *O* | *D* | *C* | *O* | *D* | *C* | *O* | *D* | *C* | *O* | *D* | *C* | *O* | *D* | *C* | *O* | *D* | *C* | *O* | *D* | *C* | *O* | *D* | *C* | *O* | *D* | *C* | *O* | *D* |

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ramsar Criterion 2 - **Nationally rare and scarce plant species** | × a | × a | × a | × b | × b | × b | × c | × c | × c | × d | × d | × d | × e | × e | × e | × f | × g | × f | × h | × h | × h | × i | × i | × i | × j | × j | × j | × k | × k | × k | × l | × l | × l |
| Ramsar Criterion 2 - **Red Data Book invertebrates** | × a | × a | × a | × b | × b | × b | × c | × c | × c | × d | × d | × d | × e | × e | × e | × f | × g | × f | × h | × h | × h | × i | × i | × i | × j | × j | × j | × k | × k | × k | × l | × l | × l |
| Ramsar Criterion 5 – **Assemblage of international importance** | × a | × a | × a | × b | × b | × b | × c | × c | × c | × d | × d | × d | × e | × e | × e | × f | × g | × f | × h | × h | × h | × i | × i | × i | × j | × j | × j | × k | × k | × k | × l | × l | × l |
| Ramsar Criterion 6 - Species Regularly occurring on passage in Numbers of International Importance - **Black-tailed godwit** | × a | × a | × a | × b | × b | × b | × c | × c | × c | × d | × d | × d | × e | × e | × e | × f | × g | × f | × h | × h | × h | × i | × i | × i | × j | × j | × j | × k | × k | × k | × l | × l | × l |

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| Ramsar Criterion 6 - Species Regularly Wintering in Numbers of International Importance - **Knot** | × a | × a | × a | × b | × b | × b | × c | × c | × c | × d | × d | × d | × e | × e | × e | × f | × g | × f | × h | × h | × h | × i | × i | × i | × j | × j | × j | × k | × k | × k | × l | × l | × l |
| Ramsar Criterion 6 - Species Regularly Wintering in Numbers of International Importance - **Dunlin** | × a | × a | × a | × b | × b | × b | × c | × c | × c | × d | × d | × d | × e | × e | × e | × f | × g | × f | × h | × h | × h | × i | × i | × i | × j | × j | × j | × k | × k | × k | × l | × l | × l |

**Evidence supporting conclusions**

| | |
|---|---|
| **a.** | No likely significant effect from direct loss of habitat on any interest feature. None of the surveys undertaken on site have identified the site as being used by interest feature species. Therefore, it does not support habitat suitable for any citation species (ref HRAR para ref HRAR para 5.21 – 5.28). |
| **b.** | Given the distance from the Ramsar, the DCO application will result in no change to current management regimes of any supporting habitat of the Ramsar during construction of WKN, or the operation/demolition of K3 or WKN (ref HRAR para 5.29 – 5.32). |
| **c.** | The site is already surrounded by developed land and 8.7 km from the Thames Estuary & Marshes Ramsar. No loss of land for managed realignment is therefore expected (ref HRAR para 5.33-5.35). |

| | |
|---|---|
| **d.** | The proposal site is 8.7 km from the Thames Estuary and Marshes Ramar and set against a backdrop of existing industrial buildings. No likely significant effect on any interest feature from increased urbanisation is therefore predicted (ref HRAR para 5.36 – 5.40). |
| **e.** | Based on studies elsewhere, it is anticipated that the majority of dust generated during construction would be deposited in the area immediately surrounding the source (up to 50 metres away) and that no change in level of exposure is expected beyond 300 metres from the site. The boundary of the Ramsar site is 8.7 km to the north east of the proposal site and therefore outside the area potentially affected by any dust. Therefore, no likely significant effect is predicted on any interest feature (ref HRAR para 5.43 – 5.45).. |
| **f.** | Given the distance to the designated site (8.7 km), no effect from construction traffic emissions are predicted (ref HRAR para 5.46-5.47). |
| **g.** | No likely significant effects from operational emissions are predicted on any interest feature or supporting habitat as all process contributions are <1% and/or the predicted environmental concentration is less than the Environmental Quality Standard (ref HRAR para 5.57 – 5.62). |
| **h.** | The first drainage system will collect clean surface water runoff (for example from building roof areas) and store it in the lagoon. The second drainage system will collect 'dirty' runoff (for example from the FGT area) and store it in the 'dirty' water tank. This 'dirty' water will then be used in the process as required (for example for ash quenching). The clean water will be stored in the lagoon and used to top up the 'dirty' water tank. If the lagoon has reached the maximum acceptable capacity it will be discharged at a controlled rate into the Swale. Therefore, no hydrological changes to terrestrial areas of the Ramsar or area which supports a Ramsar species will occur as a result of the proposed development (ref HRAR para 5.66- 5.69). |
| **i.** | Given the distance between the proposal site and the Ramsar, no changes to water quality are anticipated (ref HRAR para 5.63-5.65). |
| **j.** | Given the distance between the proposal site and the Ramsar, no likely significant effect on any interest feature is predicted from disturbance (ref HRAR para 5.70-5.71). |
| **k.** | The only non-native invasive species currently known to be in the area, though not on the Proposal site, is Japanese Knotweed. No importation of material is required to build WKN and no final planting is proposed that could inadvertently import non-native invasive to site, as such no likely significant effect is predicted (ref HRAR para 5.72 – 5.73). |
| **l.** | Given the distance between the proposal site and the Ramsar, no in-combination effects are anticipated (ref HRAR Chapter 7). |

**Matrix 7 – Screening of Likely Significant Effects: Outer Thames Estuary SPA**

| | |
|---|---|
| **Name of European Site** | **Outer Thames Estuary SPA** |
| **EU Code** | **UK9020309** |

| **Distance to Proposal site** | >9 km | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **European site features** | Direct loss or damage of habitats used by interest species | | | Change in Habitat Management Regime | | | Loss of future space to allow for managed realignment | | | Urbanisation | | | Air quality - dust | | | Air quality - emissions | | | Hydrological Changes | | | Water quality | | | Disturbance | | | Introduction or spread of non-native invasive species | | | In-combination | | |
| | *C* | *O* | *D* | *C* | *O* | *D* | *C* | *O* | *D* | *C* | *O* | *D* | *C* | *O* | *D* | *C* | *O* | *D* | *C* | *O* | *D* | *C* | *O* | *D* | *C* | *O* | *D* | *C* | *O* | *D* | *C* | *O* | *D* |
| Red throated diver | × a | × a | × a | × b | × b | × b | × c | × c | × c | × d | × d | × d | × e | × e | × e | × f | × g | × f | × h | × h | × h | × i | × i | × i | × j | × j | × j | × k | × k | × k | × l | × l | × l |
| Common tern | × a | × a | × a | × b | × b | × b | × c | × c | × c | × d | × d | × d | × e | × e | × e | × f | × g | × f | × h | × h | × h | × i | × i | × i | × j | × j | × j | × k | × k | × k | × l | × l | × l |
| Little tern | × a | × a | × a | × b | × b | × b | × c | × c | × c | × d | × d | × d | × e | × e | × e | × f | × g | × f | × h | × h | × h | × i | × i | × i | × j | × j | × j | × k | × k | × k | × l | × l | × l |

**Evidence supporting conclusions**

| | |
|---|---|
| **a.** | No likely significant effect from direct loss of habitat on any interest feature. None of the surveys undertaken on site have identified the site as being used by interest feature species. Therefore, it does not support habitat suitable for any citation species (ref HRAR para ref HRAR para 5.21 – 5.28). |
| **b.** | Given the distance from the SPA, the DCO application will result in no change to current management regimes of any supporting habitat of the SPA during either the construction or operation of the plant (ref HRAR para 5.29 – 5.32). |
| **c.** | The site is already surrounded by developed land and 9 km from the Thames Estuary & Marshes SPA. No loss of land for managed realignment is therefore expected (ref HRAR para 5.33 – 5.35). |
| **d.** | The proposal site is 9 km from the Thames Estuary and Marshes SPA and set against a backdrop of existing industrial buildings. No likely significant effect on any interest feature from increased urbanisation is therefore predicted (ref HRAR para 5.36 – 5.40). |
| **e.** | Based on studies elsewhere, it is anticipated that the majority of dust generated during construction would be deposited in the area immediately surrounding the source (up to 50 metres away) and that no change in level of exposure is expected beyond 300 metres from the site. The boundary of the SPA site is 9 km to the north east of the proposal site and therefore outside the area potentially affected by any dust. Therefore, no likely significant effect is predicted on any interest feature (ref HRAR para 5.43 – 5.45).. |
| **f.** | Given the distance to the designated site (9 km), no effect from construction traffic emissions are predicted (ref HRAR para 5.46-5.47). |
| **g.** | No likely significant effects from operational emissions are predicted on any interest feature or supporting habitat as all process contributions are <1% and/or the predicted environmental concentration is less than the Environmental Quality Standard (ref HRAR para 5.57 – 5.62). |
| **h.** | The first drainage system will collect clean surface water runoff (for example from building roof areas) and store it in the lagoon. The second drainage system will collect 'dirty' runoff (for example from the FGT area) and store it in the 'dirty' water tank. This 'dirty' water will then be used in the process as required (for example for ash quenching). The clean water will be stored in the lagoon and used to top up the 'dirty' water tank. If the lagoon has reached the maximum acceptable capacity it will be discharged at a controlled rate into the Swale. Therefore, no hydrological changes to terrestrial areas of the SPA or area which supports a SPA species will occur as a result of the proposed development (ref HRAR para 5.66- 5.69). |
| **i.** | Given the distance between the proposal site and the SPA, no changes to water quality are anticipated (ref HRAR para 5.63-5.65). |
| **j.** | Given the distance between the proposal site and the SPA, no likely significant effect on any interest feature is predicted from disturbance (ref HRAR para 5.70-5.71). |
| **k.** | The only non-native invasive species currently known to be in the area, though not on the Proposal site, is Japanese Knotweed. No importation of material is required to build WKN and no final planting is proposed that could inadvertently import non-native invasive to site, as such no likely significant effect is predicted (ref HRAR para 5.72 – 5.73). |
| **l.** | Given the distance between the proposal site and the SPA, no in-combination effects are anticipated (ref HRAR Chapter 7). |

**Matrix 8 – Screening of Likely Significant Effects: Queendown Warren SAC**

| **Name of European Site** | **Queendown Warren SAC** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **EU Code** | UK0012833 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **Distance to Proposal site** | >9 km | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **European site features** | Direct loss or damage of habitats used by interest species | | | Change in Habitat Management Regime | | | Loss of future space to allow for managed realignment | | | Urbanisation | | | Air quality – dust | | | Air quality - emissions | | | Hydrological Changes | | | Water quality | | | Disturbance | | | Introduction or spread of non-native invasive species | | | In combination | | |
| | *C* | *O* | *D* | *C* | *O* | *D* | *C* | *O* | *D* | *C* | *O* | *D* | *C* | *O* | *D* | *C* | *O* | *D* | *C* | *O* | *D* | *C* | *O* | *D* | *C* | *O* | *D* | *C* | *O* | *D* | *C* | *O* | *D* |
| **6210** Semi-natural dry grasslands and scrubland facies on calcareous substrates (*Festuco-Brometalia*) (* important orchid sites) | × a | × a | × a | × b | × b | × b | × c | × c | × c | × d | × d | × d | × e | × e | × e | × f | × g | × f | × h | × h | × h | × i | × i | × i | × j | × j | × j | × k | × k | × k | × l | × l | × l |

**Evidence supporting conclusions**

| | |
|---|---|
| **a.** | No likely significant effect from direct loss of habitat on any interest feature given the distance to the SAC (ref HRAR para ref HRAR para 5.21 – 5.28). |
| **b.** | Given the distance from the SAC, the DCO application will result in no change to current management regimes of any supporting habitat of the SAC during either the construction or operation of the plant (ref HRAR para 5.29 – 5.32). |
| **c.** | The site is already surrounded by developed land and 9 km from SAC. No loss of land for managed realignment is therefore expected (ref HRAR para 5.33 – 5.35). |
| **d.** | The proposal site is 9 km from the SAC and set against a backdrop of existing industrial buildings. No likely significant effect on any interest feature from increased urbanisation is therefore predicted (ref HRAR para 5.36 – 5.40). |
| **e.** | Based on studies elsewhere, it is anticipated that the majority of dust generated during construction would be deposited in the area immediately surrounding the source (up to 50 metres away) and that no change in level of exposure is expected beyond 300 metres from the site. The boundary of the SAC site is 9 km to the north east of the proposal site and therefore outside the area potentially affected by any dust. Therefore, no likely significant effect is predicted on any interest feature (ref HRAR para 5.43 – 5.45). |
| **f.** | Given the distance to the designated site (9 km), no effect from construction traffic emissions are predicted (ref HRAR para 5.46-5.47). |
| **g.** | No likely significant effects from operational emissions are predicted on any interest feature or supporting habitat as all process contributions are <1% and/or the predicted environmental concentration is less than the Environmental Quality Standard (ref HRAR para 5.57 – 5.62). |
| **h.** | The first drainage system will collect clean surface water runoff (for example from building roof areas) and store it in the lagoon. The second drainage system will collect 'dirty' runoff (for example from the FGT area) and store it in the 'dirty' water tank. This 'dirty' water will then be used in the process as required (for example for ash quenching). The clean water will be stored in the lagoon and used to top up the 'dirty' water tank. If the lagoon has reached the maximum acceptable capacity it will be discharged at a controlled rate into the Swale. Therefore, no hydrological changes to terrestrial areas of the SPA or area which supports a SPA species will occur as a result of the proposed development (ref HRAR para 5.66- 5.69). |
| **i.** | Given the distance between the proposal site and the SAC, no changes to water quality are anticipated (ref HRAR para 5.63-5.65). |
| **j.** | Given the distance between the proposal site and the SAC, no likely significant effect on any interest feature is predicted from disturbance (ref HRAR para 5.70-5.71). |
| **k.** | The only non-native invasive species currently known to be in the area, though not on the Proposal site, is Japanese Knotweed. No importation of material is required to build WKN and no final planting is proposed that could inadvertently import non-native invasive to site, as such no likely significant effect is predicted (ref HRAR para 5.72 – 5.73). |
| **l.** | Given the distance between the proposal site and the SAC, no in-combination effects are anticipated (ref HRAR Chapter 7). |

**Appendix 2:**

## WKN – Habitats Regulations Assessment Integrity Matrices

### Matrix 9 – Integrity matrices: The Swale SPA

| **Name of European Site** | The Swale SPA | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **EU Code** | UK9012011 | | | | | | | | | | | | | | | | | |
| **Distance to Proposal site** | 160 m | | | | | | | | | | | | | | | | | |
| | Air Quality - dust | | | Water quality | | | Disturbance – Activity | | | Disturbance – Recreation | | | Disturbance – Noise | | | Disturbance - Lighting | | |
| **European site features** | *C* | *O* | *D* | *C* | *O* | *D* | *C* | *O* | *D* | *C* | *O* | *D* | *C* | *O* | *D* | *C* | *O* | *D* |
| Migratory Wintering species regularly occurring in internationally-important numbers over winter – **Dark bellied brent geese** | × a | × a | × a | × b | × b | × b | × c | × c | × c | × d | × d | × d | × e | × f | × e | × g | × g | × g |
| Migratory Wintering species regularly occurring in internationally-important | × a | × a | × a | × b | × b | × b | × c | × c | × c | × d | × d | × d | × e | × f | × e | × g | × g | × g |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| numbers over winter – **Dunlin** | | | | | | | | | | | | | | | | | | |
| Regularly supporting over 20,000 waterfowl over winter | × a | × a | × a | × b | × b | × b | × c | × c | × c | × d | × d | × d | × e | × f | × e | × g | × g | × g |
| Diverse assemblage of breeding birds | × a | × a | × a | × b | × b | × b | × c | × c | × c | × d | × d | × d | × e | × f | × e | × g | × g | × g |

**Evidence supporting conclusions**

| | |
|---|---|
| **a.** | Whilst studies suggest most dust from construction of the proposed project would be deposited in the area immediately surrounding the source (up to 50 m, which is outside the boundary of the Swale SPA), and that no change in level of exposure is expected beyond 300 m from the site, this does mean that some impacts are possible within the Swale SPA boundary, which is located 160 m to the north east of the Proposal site.<br><br>To ensure compliance with relevant standards and guidelines relating to dust and airborne particulate matter, various techniques not relating to the avoidance or reduction in effect on a European site will be implemented during the construction phase. This will ensure that dust is managed in line with good practice such that a conclusion of no adverse effect on integrity, once mitigation is incorporated, can be reached (ref HRAR – para 6.5-6.7). It is assumed that similar avoidance measures would be included, as necessary, within any demolition plan to ensure no adverse effect on the SPA. |
| **b.** | A site-wide surface water pollution prevention system will be developed to prevent the discharge of any contaminated surface water from the site. The overall philosophy for the design of the surface water pollution prevention system for the site is to manage surface water sustainably and to ensure that discharged waters do not constitute a pollution risk.<br>Therefore, a conclusion of no adverse effect on integrity can be reached, once this mitigation is included (ref HRAR – 6.8-6.14). It is assumed that similar avoidance measures would be included, as necessary, within any demolition plan to ensure no adverse effect on the SPA. |

| | |
|---|---|
| **c.** | It is considered there is a limited potential for disturbance to waterbirds to be caused by activity associated with the Proposal when account is taken of the fact that, given the distance to The Swale from the proposal site and existing, intervening buildings. To ensure no visual disturbance On this basis, a conclusion of no adverse effect on integrity can be reached (ref HRAR – 6.22-6.148). |
| **d.** | The potential for disturbance to SPA Citation species from recreational activities by either construction or subsequent operational/demolition staff is considered low. Whilst there is access to the Saxon Shore Way from the wider Kemsley Paper Mill, currently very little or no use is made of this by Kemsley Mill staff. It is possible that there will be increased recreational usage made of the Saxon Shore Way during both construction/demolition of the site, as Sittingbourne is within potential travel distance over lunch break. However, it should be borne in mind that Milton Creek is outside the SPA and that dogs will not be permitted on site. It is anticipated that few if any construction, operational or demolition staff will access the Swale SPA. On this basis, no adverse effect on integrity is predicted (ref HRAR – 6.17 – 6.18). |
| **e.** | An assessment of the potential for each of the interest feature/intertidal assemblage bird species to be susceptible to noise disturbance, based on survey data undertaken across the intertidal area between 2009 and 2018 has been undertaken (ref HRAR - 6.22 – 6.148). This has concluded that, subject to the implementation of suitable avoidance measures (ref HRAR – 6.147-148), no adverse effect on integrity with respect to the interest feature/intertidal assemblage is predicted.<br>It is assumed that similar avoidance measures would be included, as necessary, within any demolition plan to ensure no adverse effect on the SPA. |
| **f.** | Under normal operating conditions, the Proposed Development will produce a low hum, rather than any loud, sudden noises that might elicit a disturbance response from nearby interest-feature birds using the intertidal areas of The Swale. It will furthermore not result in noise levels of greater than 55 $dBL_{Amax}$ within the SPA. On this basis, no adverse effect on integrity is predicted (ref HRAR – para 6.24). |
| **g.** | Given the distance of the proposed development to the SPA, and that there is further development between the Proposal Site and designated site, light from the proposed development does not have the potential to illuminate either the terrestrial or inter-tidal habitats above that which it is currently. All lighting will be designed as per best practice standards to ensure that no additional light spill above the current situation would occur. On this basis, no adverse effect on integrity is predicted (ref HRAR – 6.19 – 6.21, DCO Requirement 22). It is assumed that similar avoidance measures would be included, as necessary, within any demolition plan to ensure no adverse effect on the SPA. |

**Matrix 9 – Integrity matrices: The Swale Ramsar**

| | |
|---|---|
| **Name of European Site** | The Swale Ramsar |
| **EU Code** | N/A |
| **Distance to Proposal site** | 160 m |

| European site features | Air Quality - dust | | | Water quality | | | Disturbance – Activity | | | Disturbance – Recreation | | | Disturbance – Noise | | | Disturbance - Lighting | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | *C* | *O* | *D* | *C* | *O* | *D* | *C* | *O* | *D* | *C* | *O* | *D* | *C* | *O* | *D* | *C* | *O* | *D* |
| Ramsar Criterion 2 - **Nationally rare and scarce plant species** | × a | × a | × a | × b | × b | × b | × c | × c | × c | × d | × d | × d | × e | × f | × e | × g | × g | × g |
| Ramsar Criterion 2 - **Red Data Book invertebrates** | × a | × a | × a | × b | × b | × b | × c | × c | × c | × d | × d | × d | × e | × f | × e | × g | × g | × g |
| Ramsar Criterion 5 – **Overwinter assemblage of international importance** | × a | × a | × a | × b | × b | × b | × c | × c | × c | × d | × d | × d | × e | × f | × e | × g | × g | × g |
| Ramsar Criterion 6 - Regularly Wintering in Numbers of International Importance **Redshank** | × a | × a | × a | × b | × b | × b | × c | × c | × c | × d | × d | × d | × e | × f | × e | × g | × g | × g |
| Ramsar Criterion 6 - Regularly Wintering in Numbers of International | × a | × a | × a | × b | × b | × b | × c | × c | × c | × d | × d | × d | × e | × f | × e | × g | × g | × g |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Importance - **Dark bellied brent geese** | | | | | | | | | | | | | | | | | | |
| Ramsar Criterion 6 - Regularly Wintering in Numbers of International Importance - **Grey Plover** | × a | × a | × a | × b | × b | × b | × c | × c | × c | × d | × d | × d | × e | × f | × e | × g | × g | × g |

**Evidence supporting conclusions**

| | |
|---|---|
| **a.** | Whilst studies suggest most dust from construction of the proposed project would be deposited in the area immediately surrounding the source (up to 50 m, which is outside the boundary of the Swale Ramsar), and that no change in level of exposure is expected beyond 300 m from the site, this does mean that some impacts are possible within the Swale Ramsar boundary, which is located 160 m to the north east of the Proposal site.<br><br>To ensure compliance with relevant standards and guidelines relating to dust and airborne particulate matter, various techniques not relating to the avoidance or reduction in effect on a European site will be implemented during the construction phase. This will ensure that dust is managed in line with good practice such that a conclusion of no adverse effect on integrity, once mitigation is incorporated, can be reached (ref HRAR – para 6.5-6.7). It is assumed that similar avoidance measures would be included, as necessary, within any demolition plan to ensure no adverse effect on the Ramsar. |
| **b.** | A site-wide surface water pollution prevention system will be developed to prevent the discharge of any contaminated surface water from the site. The overall philosophy for the design of the surface water pollution prevention system for the site is to manage surface water sustainably and to ensure that discharged waters do not constitute a pollution risk.<br>Therefore, a conclusion of no adverse effect on integrity can be reached, once this mitigation is included (ref HRAR – 6.8-6.14). It is assumed that similar avoidance measures would be included, as necessary, within any demolition plan to ensure no adverse effect on the Ramsar. |
| **c.** | It is considered there is a limited potential for disturbance to waterbirds to be caused by activity associated with the Proposal when account is taken of the fact that, given the distance to The Swale from the proposal site and existing, intervening buildings. To ensure no visual disturbance On this basis, a conclusion of no adverse effect on integrity can be reached (ref HRAR – 6.22 - 6.148). |
| **d.** | The potential for disturbance to Ramsar Citation species from recreational activities by either construction or subsequent operational/demolition staff is considered low. Whilst there is access to the Saxon Shore Way from the wider Kemsley Paper Mill, currently very little or no use is made of this by Kemsley Mill staff. It is possible that there will be increased recreational usage made of the Saxon Shore Way during both construction/demolition of the site, as Sittingbourne is within potential travel distance over lunch break. However, it should be borne in mind that Milton Creek is outside the Ramsar and that dogs will not be permitted on site. It is anticipated that few if any construction, operational or demolition staff will access the Swale Ramsar. On this basis, no adverse effect on integrity is predicted (ref HRAR – 6.17 – 6.18). |
| **e.** | An assessment of the potential for each of the interest feature/intertidal assemblage bird species to be susceptible to noise disturbance, based on survey data undertaken across the intertidal area between 2009 and 2018 has been undertaken (ref HRAR - 6.22 – 6.148). This has concluded that, subject to the implementation of suitable avoidance measures (ref HRAR – 6.147-148), no adverse effect on integrity with respect to the interest feature/intertidal assemblage is predicted.<br>It is assumed that similar avoidance measures would be included, as necessary, within any demolition plan to ensure no adverse effect on the Ramsar. |

| | |
|---|---|
| **f.** | Under normal operating conditions, the Proposed Development will produce a low hum, rather than any loud, sudden noises that might elicit a disturbance response from nearby interest-feature birds using the intertidal areas of The Swale. It will furthermore not result in noise levels of greater than 55 $dBL_{Amax}$ within the Ramsar. On this basis, no adverse effect on integrity is predicted (ref HRAR – para 6.24). |
| **g.** | Given the distance of the proposed development to the Ramsar, and that there is further development between the Proposal Site and designated site, light from the proposed development does not have the potential to illuminate either the terrestrial or inter-tidal habitats above that which it is currently. All lighting will be designed as per best practice standards to ensure that no additional light spill above the current situation would occur. On this basis, no adverse effect on integrity is predicted (ref HRAR – 6.19 – 6.21, DCO Requirement 22). It is assumed that similar avoidance measures would be included, as necessary, within any demolition plan to ensure no adverse effect on the Ramsar. |