



RiverOak Strategic Partners

Updated Register of Environmental Actions and Commitments

TR020002/D8/2.5

Examination Document

Project Name:	Manston Airport Development Consent Order
Application Ref:	TR020002
Submission Deadline:	8
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1. Register of Environmental Actions and Commitments

- 1.1.1 This Register of Environmental Actions and Commitments (REAC) summarises the committed mitigation measures within the chapters of the Environmental Statement (ES) and associated appendices.
- 1.1.2 Where relevant, cross-references are provided to the 'Requirements' that will secure the commitments in the Development Consent Order (DCO).
- 1.1.3 **Table 2.1** contains the actions and commitments relating to construction of the Proposed Development and **Table 3.2** contains those relating to the operation of the Proposed Development.
- 1.1.4 **Appendix A** details the management plans which will be in place during construction and operation of the Proposed Development, to enforce the mitigation measures within this REAC.

2. Construction

Table 2.1 Register of Environmental Actions and Commitments – Construction

Impact	Mitigation proposed	Post mitigation effect	Proposed plan reference	DCO Reference
Air Quality				
Dust soiling of the local road network from construction vehicles	<ul style="list-style-type: none"> As part of the Construction Environmental Management Plan (CEMP) the contractor will produce and implement a Dust Management Plan (DMP). This will include details of measures to identify and reduce the risk, monitoring any dust and identify appropriate clean-up measures. Monitoring will be agreed with the Local Authority in accordance with best practice for construction projects. This will include use of dust gauges at suitable residential receptors. Osiris monitoring of Particulate Matter (PM) may be used during more intense periods of construction activity (e.g. the initial construction period in the run-up to opening). Measures will include the use of a wheel wash, covering of all loads entering and/or leaving the site, and the use of water-assisted dust sweeper(s). 	Not significant	Construction Environmental Management Plan Dust Management Plan	Requirement 6 (CEMP)
Effects of construction dust on human health and ecological receptors	<ul style="list-style-type: none"> As part of the CEMP, the contractor will produce and implement a DMP this will include details of measures to identify and reduce the risk, monitoring any dust and identify appropriate clean-up measures. Monitoring will be agreed with the Local Authority in accordance with best practice for construction projects. This will include use of dust gauges at suitable residential receptors. Osiris monitoring of PM may be used during more intense periods of construction activity (e.g. the initial construction period in the run-up to opening). Measures will include locating stockpiles away from site boundary/receptors, covering or damping down stockpiles, 	Not significant	Construction Environmental Management Plan Dust Management Plan	Requirement 6 (CEMP)

Impact	Mitigation proposed	Post mitigation effect	Proposed plan reference	DCO Reference
	stockpile maintenance/management, and removal of materials from site.			
Effects of emissions to air from construction vehicles and machinery on human health and ecological receptors	<ul style="list-style-type: none"> As part of the CEMP the contractor will include measures to reduce or limit air quality effects during the construction phase of the Proposed Development. Measures will include avoiding the use of diesel or petrol-powered generators and use mains electricity or battery-powered equipment where practicable; ensuring all vehicles switch off engines when stationary and no idling vehicles. 	Not significant	Construction Environmental Management Plan	Requirement 6 (CEMP)
Biodiversity				
Pollution/eutrophication from site discharges	<ul style="list-style-type: none"> An Outline Drainage Strategy has been developed (see Chapter 3: Description of the Proposed Development of the Environmental Statement (ES)). The drainage system will be designed to capture, treat and discharge water in a controlled manner. No water will be allowed to infiltrate to ground from any site hardstanding, and water will either be re-used or set to the site treatment facilities (attenuation ponds). Discharge from these ponds will be via a permitted discharge to Pegwell Bay. Discharge of treated water to Pegwell Bay, rather than to ground, with appropriate monitoring of water quality to ensure quality standard is maintained. A maximum discharge rate of 150 l/s has been assumed in designing the on-site attenuation ponds, however at the detailed design stage the site drainage network design will need to include consideration of the impact of the rate of discharge at the designated features on Pegwell Bay. Further consultation on this point with Natural England and the Environment Agency is also expected to occur. The proposed pumping rate represents a maximum worst-case scenario and lower rates could be achieved by using a variable rate pump or further attenuating water on site. If further attenuation is 	Not significant	Outline Drainage Strategy Construction Environmental Management Plan	Requirement 8 (Ecological mitigation) Requirement 13 (Surface and foul water drainage)

Impact	Mitigation proposed	Post mitigation effect	Proposed plan reference	DCO Reference
	<p>required this could be achieved by increasing the surface area of the ponds, by providing limited infiltration of clean run off (e.g. roof drainage), by providing additional attenuation tanks elsewhere on site, by providing additional storage capacity with the drainage network by oversizing pipes, by utilising any spare capacity in the Southern Water drainage network or by using clean run-off water elsewhere on site. The work to refine and improve attenuation and therefore reduce peak discharge rates is expected to be investigated during the detailed design stage of the project which will come after the order is made.</p> <ul style="list-style-type: none"> The site drainage network will be put in place during Construction Phase 1. During all phases, any discharges not entering the site drainage network will be contained on-site and discharged to the site sewer network, following treatment by silt-busters or similar, or taken off-site. 			
Loss of habitats	<ul style="list-style-type: none"> Compensation through off-site habitat creation at the 37.5 hectare (ha) land parcel 1362 (known as 'the Biodiversity Area'). The details of habitat creation measures for all species that could potentially be found on site are detailed in the Mitigation and Habitat Creation Plan (MHCP) at Appendix 7.13 of the ES. The habitat creation will use species of local provenance adapted to local conditions to increase resilience to climate change impacts. In the long-term, monitoring will determine if new native species are better adapted and more resilient to climate change are required and management will be amended accordingly. 	Not significant	Mitigation and Habitat Creation Plan	Requirement 8 (Ecological mitigation)
Potential effects on birds due to damage or destruction of active nests	<ul style="list-style-type: none"> Any removal of vegetation or buildings with the potential to support nesting birds will, wherever possible, be undertaken outside the bird 	Not significant	Construction Environmental Management Plan	Requirement 6 (CEMP) Requirement 8 (Ecological mitigation)

Impact	Mitigation proposed	Post mitigation effect	Proposed plan reference	DCO Reference
	<p>nesting season (March to August inclusive) to ensure compliance with the Wildlife and Countryside Act (WCA) 1981 (as amended)¹.</p> <ul style="list-style-type: none"> If any clearance work has to be undertaken during the main breeding season, it will only be undertaken after a qualified ecologist has confirmed that the feature does not support any nesting birds. 			
<p>Disturbance to/loss of foraging, commuting habitat for bats</p> <p>Potential disturbance to bat roosts, mortality/injury to individuals; habitat loss</p>	<ul style="list-style-type: none"> A method statement and tool-box talk would be prepared that would include details of pre-construction verification surveys for bats, describing the approach that would be followed to avoid contravening the WCA 1981 (as amended) and The Habitats Regulations². Where required, this would involve obtaining a European Protected Species mitigation licence through Natural England with respect to development. The method statement would also reflect the requirements of the MHCP (Appendix 7.13) describing habitat enhancements to be implemented as part of the Proposed Development. Due to the nature of the development much of the Site will be unsuitable for bats once operational with extensive Site and building lighting. Consequently, compensation for foraging/habitat/roost loss and any enhancements (including the installation of bat barns/boxes) are provided off-site within land parcel 1362. Licenced bat surveyors will monitor the effectiveness of roost mitigation and compensation and provide maintenance as required. Spill of construction related lighting onto roosts will be avoided through the use of directional lighting during the construction phase, unless it is existing lighting. Where security lighting is required during construction, this will be operated on motion 	Not significant	<p>Construction Environmental Management Plan</p> <p>Mitigation and Habitat Creation Plan</p> <p>Lighting Strategy</p> <p>Method Statement for Environmental Monitoring</p>	<p>Requirement 6 (CEMP)</p> <p>Requirement 8 (Ecological mitigation)</p>

¹ Wildlife and Countryside Act 1981 [online]. Available at: <https://www.legislation.gov.uk/ukpga/1981/69> [Accessed 14/02/2019].

²The Conservation of Habitats and Species Regulations 2017 [online]. Available at: <http://www.legislation.gov.uk/uksi/2017/1012/contents/made> [Accessed 14/02/2019].

Impact	Mitigation proposed	Post mitigation effect	Proposed plan reference	DCO Reference
	sensors using direction LED lighting and aimed only where necessary.			
Disturbance to/loss of breeding birds foraging habitat, breeding sites and shelter	<ul style="list-style-type: none"> Off-site habitat provision in the 35.7ha land parcel 1362 is detailed in the MHCP at Appendix 7.13 of the ES for ground nesting farmland birds e.g. skylark and grey partridge. Created habitats, improving the quality of that lost on Site, to have particular species-specific measures and managed for farmland birds. The number of pairs of breeding birds will be monitored for at least five years from the first breeding season successful post-habitat creation. The management required to maintain the character of the grassland will be provided in the Biodiversity Area (BA) Habitat Management Plan. 	Not significant	<p>Construction Environmental Management Plan</p> <p>Mitigation and Habitat Creation Plan</p> <p>Habitat Management Plan</p>	<p>Requirement 6 (CEMP)</p> <p>Requirement 8 (Ecological mitigation)</p>
Kill/injure reptiles	<ul style="list-style-type: none"> Method statement and tool box talks are required to avoid contravening the WCA 1981 (as amended). Removal of suitable habitat would be designed to avoid the risk of injury to reptiles (a habitat manipulation approach), through measures such as timing ground works to avoid the reptile hibernation period and the gradual removal of habitat. As detailed in the MHCP (Appendix 7.13 of the ES), any reptile populations in the remaining unsurveyed areas (c.4ha) will be captured and translocated to suitable habitats (e.g. with hibernacula, compost heaps, log/brush piles and basking areas) on Site (south of the existing southern perimeter fence) and off-Site (land parcel 1362). Monitoring of reptile population within the receptor site every two years for six years, beginning the year after translocation. The Habitat Management Plan will set out how the habitats of the reptile 	Not significant	<p>Construction Environmental Management Plan</p> <p>Mitigation and Habitat Creation Plan</p> <p>Habitat Management Plan</p>	<p>Requirement 6 (CEMP)</p> <p>Requirement 8 (Ecological mitigation)</p>

Impact	Mitigation proposed	Post mitigation effect	Proposed plan reference	DCO Reference
	receptor area will be managed to maintain suitable conditions for the target species.			
Disturbance to/loss of foraging habitat and breeding sites for terrestrial invertebrates	<ul style="list-style-type: none"> • Compensation through habitat treatments on Site (e.g. maintenance of a stressed vegetation community along runway edges by permitting short vegetation to grow on shallow substrate upon runway surface), and habitat creation within land parcel 1362 as described in the MHCP at Appendix 7.13 of the ES. • Created habitat will be specifically designed with diverse features to encourage invertebrates (e.g. including features typical of open mosaic habitat for 'brownfield' invertebrates). The management required to maintain the character of the open mosaic habitats will be provided in the BA Habitat Management Plan. • Suitable grassland management on site that is compliant with the wildlife hazard management of CAP772³. 	Not significant	<p>Construction Environmental Management Plan</p> <p>Mitigation and Habitat Creation Plan</p> <p>Habitat Management Plan</p>	<p>Requirement 6 (CEMP)</p> <p>Requirement 8 (Ecological mitigation)</p>
Disturbance to nesting barn owls	<ul style="list-style-type: none"> • Wherever possible, construction within 200m of barn owl nest sites would be timed to avoid breeding season (that is March – December inclusive). If this is not possible, nest boxes would be capped outside the breeding season prior to construction and new alternative nest sites would be installed off-Site at sufficient distance to prevent birds using the operational Site. 	Not significant	Construction Environmental Management Plan	<p>Requirement 6 (CEMP)</p> <p>Requirement 8 (Ecological mitigation)</p>
Damage or disturbance to badger setts or habitats and individuals	<ul style="list-style-type: none"> • To ensure compliance with legislation a method statement and tool-box talk would be prepared that would include details of pre-construction surveys to check on the presence of badgers and the approach that would be followed to avoid contravening the Protection of Badgers Act 1992⁴. Good practice guidelines would be 	Not significant	Construction Environmental Management Plan	Requirement 6 (CEMP)

³ Civil Aviation Authority (2017). CAP772 Wildlife Hazard Management at Aerodromes [online]. Available at: <https://publicapps.caa.co.uk/modalapplication.aspx?appid=11&mode=detail&id=2726> [Accessed 14/02/2019].

⁴ Protection of Badgers Act 1992 [online]. Available at: <https://www.legislation.gov.uk/ukpga/1992/51/contents> [Accessed 14/02/2019].

Impact	Mitigation proposed	Post mitigation effect	Proposed plan reference	DCO Reference
	<p>followed during the works (see Appendix 7.13 of the ES). This includes making all contractors aware of the potential presence of badgers, and not leaving trenches uncovered overnight (or leaving an escape plank if excavations cannot be covered). Any obvious mammal trails will be kept clear of obstruction.</p> <ul style="list-style-type: none"> Walk-over surveys will be completed prior to the start of ground clearance and construction activities. 		<p>Mitigation and Habitat Creation Plan</p> <p>Method Statement for Environmental Monitoring</p>	Requirement 8 (Ecological mitigation)
Damage to species through disturbance from noise	<ul style="list-style-type: none"> Noise control measures have been assessed in Chapter 12: Noise and Vibration of the ES. During the construction phase these would include maintaining buffer distances to sensitive receptors, use of best technology, dampers on vibrating or noise emitting equipment, timing of works. 	Not significant	Construction Environmental Management Plan	Requirement 6 (CEMP) Requirement 9 (Noise mitigation)
Damage to habitats and/or species through smothering/inhalation from dust	<ul style="list-style-type: none"> As part of the CEMP the contractor will produce and implement a DMP this will include details of measures to identify and reduce the risk, monitoring any dust and identify appropriate clean-up measures (see Chapter 6: Air Quality of the ES). Monitoring will be agreed with the Local Authority in accordance with best practice for construction projects. This will include use of dust gauges at suitable residential receptors. Osiris monitoring of PM may be used during more intense periods of construction activity (e.g. the initial construction period in the run-up to opening). Measures will include locating stockpiles away from site boundary/receptors, covering or damping down stockpiles, stockpile maintenance/management, and removal of materials from Site. 	Not significant	Construction Environmental Management Plan	Requirement 6 (CEMP) Requirement 8 (Ecological mitigation)
Damage to habitats and/or species caused by changes to air quality arising from Non-Road Mobile Machinery and vehicles during the construction phase	<ul style="list-style-type: none"> As part of the CEMP the contractor will include measures to reduce or limit air quality effects during the construction phase of the Proposed Development. 	Not significant	Construction Environmental Management Plan	Requirement 6 (CEMP)

Impact	Mitigation proposed	Post mitigation effect	Proposed plan reference	DCO Reference
	<ul style="list-style-type: none"> Measures will include avoiding the use of diesel or petrol-powered generators and use mains electricity or battery-powered equipment where practicable; ensuring all vehicles switch off engines when stationary (no idling vehicles). 			Requirement 8 (Ecological mitigation)
Damage to habitats and/or species through water pollution during construction.	<ul style="list-style-type: none"> Construction practices would comply with the Environment Agency's Pollution Prevention Guidelines with a view to preventing the pollution of ground and surface water. Pollution prevention control measures for water quality issues are detailed in a method statement (as part of the CEMP) and implemented during the construction phase to avoid damage to habitats/species. Chapter 8: Freshwater Environment of the ES details further measures. 	Not significant	Construction Environmental Management Plan	Requirement 6 (CEMP) Requirement 8 (Ecological mitigation) Requirement 13 (Surface and foul water drainage)
Freshwater Environment				
Uncontrolled sediment from the construction process entering the freshwater environment as a potential pollutant	<ul style="list-style-type: none"> Site access points will be regularly cleaned to prevent build-up of dust and mud. Earth movement will be controlled to reduce the risk of silt combining with the site run-off. Properly contained wheel wash facilities will be used (where required) to isolate sediment rich run-off. Cut-off ditches and/or geotextile silt-fences will be installed around excavations, exposed ground and stockpiles to prevent the uncontrolled release of sediments from the Site. Sediment traps will be required on all surface water drains in the surrounding region. Silty water abstracted during excavations will be discharged to settlement tanks or siltbusters as appropriate. Cleaned run-off will be discharged through the existing foul sewer drains. If sewer 	Not significant	Construction Environmental Management Plan Construction Site Drainage Plan Surface Water Monitoring Strategy / Detailed Plan	Requirement 6 (CEMP) Requirement 5 (Detailed design of fuel depot) Requirement 13 (Surface and foul water drainage)

Impact	Mitigation proposed	Post mitigation effect	Proposed plan reference	DCO Reference
	<p>capacity is limited, then silty water will need to be stored and removed from the site by tanker and disposed of at a suitably licensed location. A discharge consent for discharge to foul sewer, detailing volumes and rates of discharge will be agreed with Southern Water prior to the commencement of works, if necessary.</p> <ul style="list-style-type: none"> ● Stockpiles and material handling areas will be kept as clean as practicable to avoid nuisance from dust. Dusty materials will be dampened down using water sprays in dry weather or covered. ● Outfalls into surface waters will be monitored regularly during construction and works halted if pollution is observed. ▶ Location of monitoring: any points of surface water discharge from the site. It is assumed within the ES that in Phase 1 all construction water will go to bowser to be taken off site for discharge, and therefore no monitoring will be required. In construction phases 2-4, the ponds will be in use and the discharge from the ponds will be monitored. ▶ Frequency of monitoring: The water quality should be inspected at least on a daily basis at point of outfall for low risk operations, but also in an ad-hoc way to coincide with changes in construction activities, which could change the outflow water quality profile. There could be a requirement for continuous monitoring (e.g. turbidity, EC) if a particular contaminant were identified in the made ground on site. It should be noted that runoff is largely going to occur from areas of hardstanding due to the high infiltration capacity of the soils / aquifer, therefore works in areas where soils are exposed are not likely to generate runoff. In addition, conditions are relatively dry at Manston and therefore the number of days that runoff is generated will be small, and the number of days that the pump is in operation will also be small. As a result, an event-based monitoring regime may be more appropriate than a continuous regime. The frequency of monitoring should be determined once the detailed construction 			

Impact	Mitigation proposed	Post mitigation effect	Proposed plan reference	DCO Reference
	<p>phasing and dewatering plans have been finalised, as well as the ground investigation (GI) works.</p> <ul style="list-style-type: none"> ● The construction site drainage plan will be agreed with the Environment Agency, Natural England and Southern Water prior to the commencement of works. ● Dewatering or the placement of flow barriers to manage perched groundwater in the Made Ground during groundworks, so that flow into the underlying Chalk is prevented. ● The presence of potential groundwater flow in the Head Deposits would be taken into account in the design of deeper structures and in the selection of any infill materials. ● Penstock valves (existing or new) will be considered during the design phase of the surface water system and relevant people trained in the use of the emergency system. 			
<p>Spillages of oils and other chemicals associated with the construction process entering the freshwater environment as a potential pollutant</p>	<ul style="list-style-type: none"> ● Wherever possible, plant and machinery will have drip trays beneath oil tanks / engines / gearboxes / hydraulics which will be checked and emptied regularly and correctly disposed of via a licensed waste disposal operator. ● Oils and hydrocarbons will be stored in designated locations with specific measures to prevent leakage and release of their contents, including the siting of the storage area away from the drainage system on an impermeable base, with an impermeable bund that has no outflow and is of adequate capacity to contain 110% of the contents. Connection valves and trigger guns will be protected from vandalism and kept secure when not in use. ● A Spillage Environmental Response Plan will be produced, which site staff will have read and understood. On-site provisions will be made to contain a serious spill or leak through the use of spill kits, booms, bunding and absorbent material. 	<p>Not significant</p>	<p>Construction Environmental Management Plan</p> <p>Spillage Environmental Response Plan / Environmental Spillage Plan</p> <p>Surface Water Monitoring Strategy / Detailed Plan</p> <p>Construction Site Drainage Plan</p>	<p>Requirement 6 (CEMP)</p> <p>Requirement 5 (Detailed design of fuel depot)</p> <p>Requirement 13 (Surface and foul water drainage)</p>

Impact	Mitigation proposed	Post mitigation effect	Proposed plan reference	DCO Reference
	<ul style="list-style-type: none"> ● The bulk of the existing runways and taxiways will be kept as they afford protection to the adit in Source Protection Zone (SPZ) 1. In order to mitigate against any potential FOD hazard (a concern raised by the Civil Aviation Authority (CAA)), it is proposed to overlay the extended paved area with asphalt as part of the initial construction phase. ● Hazardous liquids will be stored further than 10m from any surface waters or surface water gullies. ● The construction site drainage plan will be agreed with the Environment Agency, Natural England and Southern Water prior to the commencement of works. ● Dewatering or the placement of flow barriers to manage perched groundwater in the Made Ground during groundworks, so that flow into the underlying Chalk is prevented. ● The presence of potential groundwater flow in the Head Deposits would be taken into account in the design of deeper structures and in the selection of any infill materials. ● Penstock valves (existing or new) will be considered during the design phase of the surface water system and relevant people trained in the use of the emergency system. 			
Pollution incidents resulting from concrete batching and cement products on-site during the construction process	<ul style="list-style-type: none"> ● No potentially polluting activities would be located in SPZ1. ● Any mixing and handling of wet concrete that is required on-site will be undertaken in designated areas outside of SPZ1, and the location and configuration of the plant will be agreed with the Environment Agency. ● A designated area will be used for any washing down or equipment cleaning associated with concrete or cementing processes and facilities provided to remove sediment prior to disposal to foul sewer. 	Not significant	Construction Environmental Management Plan Surface Water Monitoring Strategy / Detailed Plan	Requirement 6 (CEMP) Requirement 5 (Detailed design of fuel depot) Requirement 13 (Surface and foul water drainage)

Impact	Mitigation proposed	Post mitigation effect	Proposed plan reference	DCO Reference
	<ul style="list-style-type: none"> Any contaminated soil will be identified by ground investigation prior to construction and either treated on-site and reused, or removed and disposed of off-site by a suitably licensed waste disposal operator. Measures such as cut-off trenches will be put in place to prevent any potentially polluted run-off from within the site entering any excavations. Dewatering or the placement of flow barriers to manage perched groundwater in the Made Ground during groundworks, so that flow into the underlying Chalk is prevented. The presence of potential groundwater flow in the Head Deposits would be taken into account in the design of deeper structures and in the selection of any infill materials. Penstock valves (existing or new) will be considered during the design phase of the surface water system and relevant people trained in the use of the emergency system. 			
Piling and other intrusive works increasing turbidity of groundwater at the Lord of the Manor source	<ul style="list-style-type: none"> The approach to any on-site piling will be agreed with Southern Water and the Environment Agency prior to the commencement of works. Piling methods will be designed to have a minimum of ground disturbance and will be in accordance with "<i>Piling and Preventative Ground Improvement Methods on Land Affected by Contamination: Guidance on pollution prevention</i>" and "<i>Piling into contaminated sites</i>"⁵. Piling would be avoided in sensitive areas, but if required would be designed to minimise hydrogeological risk by using piling techniques that minimise disturbance and that also provide good seals. 	Not significant	Construction Environmental Management Plan	Requirement 6 (CEMP) Requirement 15 (Piling)

⁵ Wescott, Lean and Cunningham (2001). Piling and Preventative Ground Improvement Methods on Land Affected by Contamination: Guidance on pollution prevention

Impact	Mitigation proposed	Post mitigation effect	Proposed plan reference	DCO Reference
	<ul style="list-style-type: none"> ● No drilling to take place within 100m of the western adit without a specific risk management plan in place. ● Avoidance of the completion of deep boreholes, particularly in the more sensitive parts of the site, with all site investigation boreholes restricted to the minimum depth required to obtain geotechnical data for design purposes. ● No groundwater level observation boreholes would be constructed, unless approved by the Environment Agency. ● Physical work within close proximity of the Western Adit may be potentially restricted (in type, timing and duration), subject to detailed design plans. ● Ground investigations and remediation (as required) would be completed prior to the site being redeveloped/constructed. 			
Effects on the functionality of the water supply and sewer infrastructure around the site during the construction phase	<ul style="list-style-type: none"> ● The exact locations of nearby sewers and water supply infrastructure needs to be established by on-site survey prior to demolition works. An appropriate protection system (i.e. temporary support structure, sheet piles, installation of secant piles etc.) has to be implemented to minimise any impact to the public sewer network. The piling methodology will be developed considering the neighbouring utility services. ● The water requirements for the construction phase will be agreed with Southern Water post consent. ● Discharge rates from the site will not exceed current sewer capacity, and these rates will be agreed with Southern Water to ensure appropriate storage is provided on site during the construction phase. ● The Environment Agency will be consulted on any changes made to the design of the surface water system. 	Not significant	<p>Construction Environmental Management Plan</p> <p>Surface Water Monitoring Strategy / Detailed Plan</p>	<p>Requirement 6 (CEMP)</p> <p>Requirement 15 (Piling and other intrusive works)</p> <p>Requirement 13 (Surface and foul water drainage)</p>

Impact	Mitigation proposed	Post mitigation effect	Proposed plan reference	DCO Reference
	<ul style="list-style-type: none"> The construction phase water and foul water demands will be agreed with Southern Water prior to the commencement of works. This will be a DCO requirement. 			
Historic Environment				
Disturbance or removal of assets of archaeological interest	<ul style="list-style-type: none"> Subject to further survey and any subsequent intrusive investigation that may be required, harm or loss of archaeological interest will be minimised through investigation and recording in cases where heritage assets of low or medium significance are present, and avoided or minimised where feasible through flexibility inherent in the master planning process for heritage assets of high significance. Disturbance in the areas to the south of and to either end of the runway will be limited to services and lighting. 	Not significant	Construction Environmental Management Plan	Requirement 6 (CEMP)
Potential harm to non-designated assets within the site	<ul style="list-style-type: none"> Excavation and investigation prior to construction. Archaeological evaluation works will be undertaken during Phase 1 of the Proposed Development. An Archaeological Evaluation Written Scheme of Investigation will be prepared in consultation with Kent County Council's Heritage advisors in advance of works. Intrusive evaluation will include examination of the Northern Grass and locations where Quaternary head deposits occur. The results of archaeological evaluation and detailed construction designs will be discussed with Kent county Council's Heritage advisors to determine an appropriate programme of activities to mitigate any adverse effects and to achieve appropriate archaeological protection. The existing runway, taxiways and areas of hardstanding will be used to minimise further disturbance and intrusive works in the demonstrably sensitive areas to either end and to the south of the runway and will be restricted to provision of services. 		Archaeological Evaluation Written Scheme of Investigation (AWSI)	Requirement 16 (Archaeological remains)

Impact	Mitigation proposed	Post mitigation effect	Proposed plan reference	DCO Reference
Impact of construction on historic landscape character and setting of heritage assets Changes to non-designated structures and location of heritage assets within the airport	<ul style="list-style-type: none"> Removing temporary construction features to restore plan and character of airport where possible. Further survey as required to establish significance and condition of historic structures and the potential for reuse and/or relocation where feasible. A safeguarded museum area retains the existing museum buildings and memorial gardens, with retention of further structures to be discussed with the museum operators (see Chapter 3: Description of the Proposed Development of the ES). Flexibility inherent in the master planning process provides opportunities for adjusting the detailed design and footprint of buildings within the Northern grass area to enhance setting of the museum buildings and contribute to sense of place. Opportunities will be sought to retain historic connections through aspects such as street and building names, and an Airport Consultative Committee will be set up. Further investigation and assessment of the RAF Battle HQ, RAF Control Tower and USAF Fire station is required during Phase 1 of the Proposed Development to ascertain their condition, desirability and feasibility for incorporation as a sustainable asset in the final design. Structures which will not be retained will be subject to an appropriate level of building recording, to be agreed in consultation with Kent County Council, in order to create a permanent record of these assets. 	Significant	Construction Environmental Management Plan	Requirement 6 (CEMP)
Indirect effects on off-site designated heritage assets	<ul style="list-style-type: none"> Construction activities would be temporary and partially screened by existing bunding, planting and structures within the Site. Mitigation measures are detailed in Chapter 12: Noise and Vibration of the ES. 	Not significant	Construction Environmental Management Plan	Requirement 6 (CEMP)
Land Quality				

Impact	Mitigation proposed	Post mitigation effect	Proposed plan reference	DCO Reference
Mobilisation of and exposure to existing potential contamination through soil disturbance, generation of dust during construction activities.	<ul style="list-style-type: none"> ● The works will be carried out in accordance with relevant Construction Design Management (CDM) Regulations 2015⁶. ● An intrusive investigation will be carried out and the findings of this intrusive investigation will inform the package of measures to be included within the detailed design. ● Due to the sensitivity of the groundwater, it is therefore appropriate that the intrusive investigation takes a staged approach. In the first instance investigating the shallow soil using trial pits and window samples to determine if there is evidence of contamination. This will then determine the need for and scope of any direct investigation of the groundwater while minimising disturbance of the aquifer highly sensitive to turbidity. ● Made Ground extending to depths of up to 0.30 m bgl has been identified within the site boundary overlying the natural soils. The Made Ground is not considered to be a suitable founding stratum and should be excavated prior to any construction or loading across the Site. ● Any removal of contamination beneath the existing runway will be risk based and will weigh advantages of contamination removal against removal of the runway. ● A CEMP has been submitted as part of the DCO application. It will include the following pollution measures: <ul style="list-style-type: none"> ▶ A survey (pre- site preparation survey as defined by the Health and Safety Executive (HSE)) and removal of asbestos containing materials, and other materials and structures contaminated with asbestos fibres, are expected to be performed by a competent/licensed contractor prior to any demolition works. 	Not significant	<p>Construction Environmental Management Plan</p> <p>Spillage Environmental Response Plan / Environmental Spillage Plan</p> <p>Dust Management Plan</p> <p>Remediation Strategy</p> <p>Surface Water Monitoring Strategy / Detailed Plan</p>	<p>Requirement 6 (CEMP)</p> <p>Requirement 10 (Landscaping)</p> <p>Requirement 11 (Contaminated land and groundwater)</p> <p>Requirement 15 (Piling and other intrusive works)</p>

⁶ Construction Design Management (CDM) Regulations 2015 [online]. <http://www.hse.gov.uk/construction/cdm/2015/index.htm> Available at: [Accessed 14/02/2019].

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	<ul style="list-style-type: none"> ▶ For site workers and visitors, the potential for exposure to contaminants will be mitigated by the Control of Substances hazardous to Health (COSHH) Regulations 2002⁷ and the Management of Health and Safety at Work Regulations 1999⁸ and controlled through good construction practices such as site induction, good hygiene practices, dust suppression (especially in loading / unloading bays and tracks), requirement for Personal Protective Equipment (PPE) suitable to prevent exposure and/or restricted access during higher risk activities. ▶ A watching brief will be in place during demolition, ground and construction works. If unexpected contamination is encountered or suspected, the works will cease in that area and assessment by a suitably qualified land contamination specialist will be made to determine appropriate actions. Soil (soil vapour/ groundwater) samples will be collected and analysed. The risks associated with contamination will be assessed. When required, a Remediation Strategy will be designed and agreed following consultation with the Environment Agency and the relevant local authority as appropriate before implementation. ▶ Any construction activity with the potential to produce or release dusts will be assessed and dust avoided where possible through design, or, if unavoidable will be controlled on-site using construction good practice to prevent site users and neighbouring site occupiers being exposed to contaminants. ▶ Site access points will be regularly cleaned to prevent build-up of dust and mud. 			

⁷ Control of Substances hazardous to Health (COSHH) Regulations 2002 [online]. Available at: <http://www.hse.gov.uk/nanotechnology/coshh.htm> [Accessed 14/02/2019].

⁸ Management of Health and Safety at Work Regulations 1999 [online]. Available at: <http://www.legislation.gov.uk/uksi/1999/3242/contents/made> [Accessed 14/02/2019].

Impact	Mitigation proposed	Post mitigation effect	Proposed plan reference	DCO Reference
	<ul style="list-style-type: none"> ▶ Any imported landscaping material will be clean and free of contaminants and of suitable thickness. ▶ Earth movement will be controlled to reduce the risk of silt combining with the Site run-off. ▶ Properly contained wheel wash facilities will be used (where required) to isolate sediment rich run-off. ▶ Cut-off ditches and/or geotextile silt-fences will be installed around excavations, exposed ground, stockpiles to prevent the uncontrolled release of sediments from the Site. ▶ Sediment traps will be required on all surface water drains in the surrounding region. ▶ Silty water abstracted during excavations will be discharged to settlement tanks or siltbusters as appropriate. Cleaned run-off will be discharged through the existing foul sewer drains. If sewer capacity is limited then silty water will need to be stored and removed from the site by tanker and disposed of at a suitably licensed location. A discharge consent for discharge to foul sewer, detailing volumes and rates of discharge will be agreed with Southern Water prior to the commencement of works, if necessary. ▶ Stockpiles and material handling areas will be kept as clean as practicable to avoid nuisance from dust. Dusty materials will be dampened down using water sprays in dry weather or covered. 			
Exposure to contaminants/ Pollution incidents resulting from spillage during construction	<ul style="list-style-type: none"> ● The risks from accidental spillages/leaks during handling and storage of chemicals and fuels will be mitigated by the COSHH Regulations 2002⁷ and the Management of Health and Safety at Work Regulations 1999⁸. 	Not significant	Construction Environmental Management Plan	Requirement 6 (CEMP) Requirement 11 (Contaminated)

Impact	Mitigation proposed	Post mitigation effect	Proposed plan reference	DCO Reference
	<ul style="list-style-type: none"> ● Fuel, oil and chemical storage and handling will be minimised in the design of the works and safe working procedures / method statements for handling fuel and minimising the potential for spillage will be put in place, for instance by emptying and properly decommissioning fuel tanks prior to removal. ● The risks from accidental spillages/leaks during handling and storage of chemicals and fuels will be mitigated by pollution prevention measures and good working practices (CEMP) in accordance with current guidelines. ● Wherever possible, plant and machinery will have drip trays beneath oil tanks / engines / gearboxes / hydraulics which will be checked and emptied regularly and correctly disposed of via a licensed waste disposal operator. ● Oils and hydrocarbons will be stored in designated locations outside of SPZ1 with specific measures to prevent leakage and release of their contents, including the siting of the storage area away from the drainage system on an impermeable base, with an impermeable bund that has no outflow and is of adequate capacity to contain 110% of the contents. Valves and trigger guns will be protected from vandalism and kept locked when not in use. ● A Spillage Environmental Response Plan will be produced, which Site staff will have read and understood. On-site provisions will be made to contain a serious spill or leak through the use of booms, bunding and absorbent material. ● The bulk of the existing runways and taxiways will be kept as they afford protection to the adit in SPZ1. In order to mitigate against any potential FOD hazard (a concern raised by the CAA), it is proposed to overlay the extended paved area with asphalt as part of the initial construction phase. 		Spillage Environmental Response Plan / Environmental Spillage Plan	land and groundwater)

Impact	Mitigation proposed	Post mitigation effect	Proposed plan reference	DCO Reference
Discovery and potentially explosion of UXO associated with construction process	<ul style="list-style-type: none"> A detailed Unexploded Ordnance (UXO) threat and risk assessment will be carried out in accordance with CIRIA C681 Chapter 5⁹ on managing UXO risks prior to any intrusive works such as a ground investigation and the re-development of the site to determine any mitigation required to address this risk. This will be done in a phased approach, with additional assessment carried out as part of the site investigation. Future work relating to UXO will follow CIRIA guidelines. The final CEMP will be informed by the findings of further site investigation and mitigation implemented in the construction phase. 	Not significant	Construction Environmental Management Plan UXO Threat and Risk Assessment	Requirement 6 (CEMP)
Pollution incidents resulting from the release of contaminants from building materials or construction activities	<ul style="list-style-type: none"> During the Site works tendering process the expected level of environmental control will be included in the tender documents, so that all contractors allow for mitigation measures in their work scope. These environmental controls will be included within the final CEMP and implemented in the construction works. Suitably qualified and experienced geo-environmental engineers would be used to supervise the ground works. Designated washdown areas outside of SPZ1 with fully contained drainage will be used for plant/vehicles in contact with contaminated soils to avoid contaminants being moved around the site or taken off-site. The foundation excavations will be dewatered by pumping if required. The water will be collected in suitable tanks and held on site for collection by a licensed waste contractor. No water from foundation dewatering operations will be discharged directly to ground. If required, any discharge would occur under the appropriate regulator's consent. 	Not significant	Construction Environmental Management Plan Outline Drainage Strategy	Requirement 6 (CEMP) Requirement 8 (Ecological Mitigation) Requirement 10 (Landscaping) Requirement 11 (Contaminated land and groundwater) Requirement 12 (Protected species)

⁹ CIRIA (2009). Unexploded Ordnance (UXO) A Guide for the Construction Industry C681 [online]. Available at: <https://www.ciria.org/ItemDetail?iProductcode=C681&Category=BOOK> [Accessed 12/02/2018].

Impact	Mitigation proposed	Post mitigation effect	Proposed plan reference	DCO Reference
	<ul style="list-style-type: none"> The risks will be mitigated through specification of impermeable concrete to the appropriate British Standard to minimise any potential adverse impacts. In construction Phases 2-4, it is envisaged that the Site drainage network would be in place and discharges would be to Pegwell Bay. Such discharges would only take place once silt and any other potential pollutants (e.g. hydrocarbons) had been removed from Site discharge. 			Requirement 13 (Surface and foul water drainage)
Pollution incidents due to creation of pathways for the migration of potential contamination	<ul style="list-style-type: none"> Ground disturbance and potentially polluting activities within SPZ1 will be avoided Suitable foundation design and piling methods will be implemented to prevent migration of any potential/residual contamination and will be agreed with Southern Water and the Environment Agency prior to the commencement of works. Piling methods will be in accordance with "<i>Piling and Preventative Ground Improvement Methods on Land Affected by Contamination: Guidance on pollution prevention</i>"⁵ and "<i>Piling into contaminated sites</i>". Any removal of contamination beneath the existing runway will be risk based and will weigh advantages of contamination removal against removal of the runway. Remediation of potential residual contaminants at the Jentex tank farm will be undertaken, subject to risk-based assessment. 	Not significant	Construction Environmental Management Plan Spillage Environmental Response Plan / Environmental Spillage Plan	Requirement 11 (Contaminated land and groundwater) Requirement 15 (Piling and other intrusive works)
Pollution incidents due to removal of tanks during construction	<ul style="list-style-type: none"> Procedures incorporated into the CEMP to prevent mobilisation of fuel and these will be implemented as part of the construction phase. 	Not significant	Construction Environmental Management Plan	Requirement 6 (CEMP) Requirement 11 (Contaminated

Impact	Mitigation proposed	Post mitigation effect	Proposed plan reference	DCO Reference
	<ul style="list-style-type: none"> ● Safety precautions will be implemented and will include preparing an emergency response plan within the site health and safety documentation. ● Remediation of potential residual contaminants at the Jentex tank farm will be undertaken, subject to risk-based assessment. ● For existing fuel storage decommissioning phase: <ul style="list-style-type: none"> ▶ All services will be traced. ▶ All fuel lines and tanks will be emptied, cleaned and degassed prior to removal. ▶ The management of soil contamination will be informed by the site investigation to define and delineate impacted areas. ● For new fuel storage commissioning phase: <ul style="list-style-type: none"> ▶ A commissioning plan will be designed and followed. ▶ All lines and tanks will be checked by competent people prior to commissioning. 		<p>Construction Emergency Plan</p> <p>Spillage Environmental Response Plan / Environmental Spillage Plan</p>	land and groundwater)
Pollution incidents resulting from concrete batching and cement products on Site during construction	<ul style="list-style-type: none"> ● Any mixing and handling of wet concrete that is required on-Site will be undertaken in designated areas outside of SPZ1. ● A designated area, the location and configuration of which will be agreed following consultation with the Environment Agency, will be used for any washing down or equipment cleaning associated with concrete or cementing processes and facilities provided to remove sediment prior to disposal to foul sewer. ● Any contaminated soil will be identified by ground investigation prior to construction and either treated onsite and reused, or 	Not significant	<p>Construction Environmental Management Plan</p> <p>Spillage Environmental Response Plan / Environmental Spillage Plan</p>	Requirement 6 (CEMP)

Impact	Mitigation proposed	Post mitigation effect	Proposed plan reference	DCO Reference
	<p>removed – subject to risk-based assessment - and disposed of off-site by a suitably licensed waste disposal operator.</p> <ul style="list-style-type: none"> Measures such as cut-off trenches will be put in place to prevent any potentially polluted run-off from within the site entering any excavations. 			
Health hazard due to future maintenance works (particularly any in ground maintenance works) that may disturb any residual contamination	<ul style="list-style-type: none"> The site investigation and subsequent risk assessment will identify whether any further remediation is required. Any removal of contamination beneath the existing runway will be risk based and will weigh advantages of contamination removal against removal of the runway. This might include the use of defined service corridors or clear service trenches so that maintenance workers are not exposed to potential residual contamination. The health and safety file for the construction will include information of ground contamination and will be kept and used to develop risk assessment and method statement including mitigation measures to address these risks in line with health and safety legislation during operational phase. 	Not significant	Construction Environmental Management Plan	<p>Requirement 6 (CEMP)</p> <p>Requirement 11 (Contaminated land and groundwater)</p>
Health hazard due to, or pollution incidents resulting from, spillages during re-fuelling	<ul style="list-style-type: none"> The risks from accidental spillages/leaks during handling and storage of chemicals and fuels will be mitigated through compliance with the COSHH Regulations 2002⁷ and the Management of Health and Safety at Work Regulations 1999⁸. Fuel, oil and chemical storage and handling will be minimised in the design of the works and safe working procedures / method statements for handling fuel and minimising the potential for spillage will be put in place. The risks from accidental spillages/leaks during handling and storage of chemicals and fuels will be mitigated by pollution 	Not significant	<p>Construction Environmental Management Plan</p> <p>Spillage Environmental Response Plan / Environmental Spillage Plan</p>	<p>Requirement 5 (Detailed design of fuel depot)</p> <p>Requirement 6 (CEMP)</p> <p>Requirement 11 (Contaminated land and groundwater)</p>

Impact	Mitigation proposed	Post mitigation effect	Proposed plan reference	DCO Reference
	<p>prevention measures and good working practices in accordance with current guidelines.</p> <ul style="list-style-type: none"> Re-fuelling will be in designated areas with active drainage areas and fuel interceptors. Different treatment methods will be considered, light liquid separator, activated sludge aeration tank and/or forced bed aeration, to treat pollutants with will include exhaust fumes, fuel and lubricant spillages. Control levels and alarms will be used to identify leaks or overflows. Fuelling system will include automatic shut off drainage system whilst vehicles will be on refuelling stand. 			Requirement 13 (Surface and foul water drainage)
Health hazard / Damage to property due to residual contamination being present as a result of the inappropriate re-use / use of contaminated fills and soils during construction	<ul style="list-style-type: none"> Soil to be re-used will be controlled under the CL:AIRE Definition of Waste: Development Industry Code of Practice (version 2)¹⁰ to confirm they are suitable both chemically and geotechnically. Any imported landscaping material will be clean and free of contaminants and of suitable thickness. The construction development will bring forward a mostly impermeable cover on the Site. 	Not significant	Construction Environmental Management Plan	Requirement 6 (CEMP) Requirement 11 (Contaminated land and groundwater)
Health Hazard / Pollution incidents due to leakage and / or failure from fuel storage tanks	<ul style="list-style-type: none"> Further site investigations will be undertaken to inform the detailed design of the fuel farm facility. The fuel farm will largely be located in SPZ2 with only a small piece in SPZ1. All fuel infrastructure will be in SPZ2 (according to most recent development plans (dated 26/10/2017)). 	Not significant	Construction Environmental Management Plan	Requirement 5 (Detailed design of fuel depot) Requirement 6 (CEMP)

¹⁰ CL:AIRE Definition of Waste: Development Industry Code of Practice (version 2) (2011) [online]. Available at: http://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&ved=2ahUKewiW_62ctrvGhAhXuSRUIHWwWBOAQFjAAegQICRAC&url=http%3A%2F%2Fwww.carbonaction2050.com%2Fsites%2Fcarbonaction.ciobrebuild.io1dev.com%2Ffiles%2Fdocument-attachment%2FDefinition%2520of%2520Waste.%2520Development%2520Industry%2520Code%2520of%2520Practice.pdf&usq=AOvVaw1HgXfdh1-38n_7VHEbV_el [Accessed 14/02/2019].

Impact	Mitigation proposed	Post mitigation effect	Proposed plan reference	DCO Reference
	<ul style="list-style-type: none"> Design will be undertaken beyond BAT and will include: bund construction, specification of double bunded tanks, bund to be underlain by impermeable membrane (e.g. visqueen), joints to be sealed with a hydrophobic sealant to prevent leakage, and concrete to include self-sealing material (e.g. xypex) and to be specified to water impermeable standard with additional reinforcement to limit cracks to e.g. <0.2 mm. The new fuel farm facility will incorporate suitable blast protection and other measures to control and mitigate any risks to nearby commercial, residential and other property from an incident at the fuel farm. The design of these measures will be discussed with the Health and Safety Executive. A new airside/landside security facility will be installed in the location of the existing 'emergency access gate' adjacent to the Jentex facility to provide direct airside access for the fuel farm. Re-fuelling will be in designated areas with active drainage areas and fuel interceptors. Control levels and alarms will be used to identify leaks or overflows. Regular tank inspections will be conducted. Fuelling system will include automatic shut off of drainage system whilst vehicles will be on refuelling stand. In the bunded area, sump drainage will be to a low point from where it will be manually pumped into the drainage system (if clean) or to tanker if contaminated. All pipes will go over the bund wall (no below ground pipes). 		<p>Construction Emergency Plan</p> <p>Spillage Environmental Response Plan / Environmental Spillage Plan</p>	<p>Requirement 11 (Contaminated land and groundwater)</p> <p>Requirement 13 (Surface and foul water drainage)</p>
Permeation of plastic pipes by contaminants	<ul style="list-style-type: none"> The intrusive investigation will inform the package of measures to be included within the detailed design, which could include use of appropriate type and material specification of potable water pipes and other buried services (e.g. use of barrier pipe and/or clean service trenches). 	Not significant	Construction Environmental Management Plan	<p>Requirement 4 (Detailed design)</p> <p>Requirement 13 (Surface and foul water drainage)</p>
Landscape and Visual				

Impact	Mitigation proposed	Post mitigation effect	Proposed plan reference	DCO Reference
Potential loss or damage to valued vegetation (including tree roots as a result of construction activity) and screening elements	<ul style="list-style-type: none"> Vegetation /tree survey and protection plans considered as part of the design process. Construction activities to be carried out in accordance with <i>BS 5837: 2012 Trees in relation to design, demolition and construction</i>¹¹. Recommendations in order to protect trees and other vegetation which is to be retained. New tree planting to be undertaken to replace that lost. The design of new planting has been located to deliver screening and softening of large-scale built form and is proposed along the southern side of Manston Road (north of the Cargo Facilities) and around the Aviation Business Park. Further planting is proposed east of Spitfire Way. Typical proposed species will be native and non-berrying so as to reduce bird attraction. The width of the planted buffers along the perimeter of the business park is typically 45m whilst elsewhere it ranges from 25-30 m with planting densities at 4 m centres in line with recommendations from the CAA. 	Not significant	<p>Construction Environmental Management Plan</p> <p>Landscape Masterplan</p> <p>Tree Survey and Protection Plans</p>	<p>Requirement 6 (CEMP)</p> <p>Requirement 8 (Ecological mitigation)</p> <p>Requirement 10 (Landscaping)</p> <p>Requirement 12 (Protected species)</p>
Direct or indirect effects on valued characteristics, special qualities and character	<ul style="list-style-type: none"> Incorporation of enhanced landscape/architectural design, the provision of a landscape masterplan and landscape management to reduce effects of landscape character and ensure that the nature of these effects is neutral or positive as far as possible. The use of building materials, detailing and finish for the roofs and facades of proposed buildings that respond in a positive way to the existing landscape context. However, these details are not yet available so cannot be used to inform the assessment. In terms of overflying and the potential effects on tranquillity, the noise mitigation strategy has been developed in line with the CAP 1520: Draft Airspace Design Guidance¹². 	Not significant	<p>Landscape Masterplan</p> <p>Noise Mitigation Plan</p>	<p>Requirement 4 (Detailed design)</p> <p>Requirement 9 (Noise mitigation)</p> <p>Requirement 10 (Landscaping)</p>

¹¹ BS 5837: 2012 Trees in relation to design, demolition and construction.

¹² Civil Aviation Authority (2017). CAP 1520: Draft Airspace Design Guidance [online]. Available at: <https://publicapps.caa.co.uk/modalapplication.aspx?appid=11&mode=detail&id=7818> [Accessed 14/02/2019].

Impact	Mitigation proposed	Post mitigation effect	Proposed plan reference	DCO Reference
<p>Changes to existing views, visual amenity and scenic quality:</p> <ul style="list-style-type: none"> ▶ Introduction of new large-scale features to the view; ▶ Alteration to the landscape character of the view; ▶ Loss of or disruption to existing views of skylines; ▶ Changes to perceptions if movement through increased traffic (including HGVs) and air movements; and ▶ Visual effects resulting from light pollution. 	<ul style="list-style-type: none"> ● The provision of screening vegetation as detailed above around the Aviation Business Park, the southern side of Manston Road (north of the Cargo Facilities) and east of Spitfire Way. Localised bunding offers further visual screening in key locations by raising the ground level for planting. ● It is anticipated that the design of the buildings will be of high quality and that the design treatment, detailing and materials will be used to mitigate the apparent scale and soften the appearance of the buildings. However, these details are not yet available so cannot be used to inform the assessment. ● Built form will be located back from the edge of the chalk plateau, with the southern edge of the plateau cited as a key sensitivity, as the skyline and backdrop to the lower lying landscape to the south. 	<p>Significant:</p> <ul style="list-style-type: none"> ▶ residents of four two-storey properties in north of Alland Grange Lane properties (Group 21) ▶ residents of two two-storey properties in south of Cheeseman's Farm properties (Group 22) ▶ Vincent Farm (Group 23) ▶ Garden Cottage and Leo Cottage of Preston Road properties (Group 25) ▶ Manston properties- Preston Road (Group 31) ▶ Manston- properties on Northern section of High Street (Group 32) ▶ Manston – Properties in southern section of 	<p>Construction Traffic Management Plan (inclusive of staff travel plan, traffic routing strategy and traffic timing strategy)</p> <p>Landscape Masterplan</p> <p>Public Right of Way (PRoW) Management Plan</p>	<p>Requirement 4 (Detailed design)</p> <p>Requirement 10 (Landscaping)</p>

Impact	Mitigation proposed	Post mitigation effect	Proposed plan reference	DCO Reference
		High Street (Group 33)		
		▶ Rose Farm and Pounces Cottages (Group 35)		
		▶ Bell Davies Drive (Group 36)		
		▶ Terraced and semi-detached properties on the eastern side of Manston Court Road (Group 38)		
		▶ Northern most properties around Manston Court (Group 39)		
		▶ Northern semi-detached properties on western side of Manston Court Road (Group 40)		
		▶ Southern terraced properties on western side of Manston Court Road (Group 41)		
		▶ Jubilee Cottages on Manston Road (Group 42)		

Impact	Mitigation proposed	Post mitigation effect	Proposed plan reference	DCO Reference
		<ul style="list-style-type: none"> ▶ Properties in northern Cliffs End, north of Canterbury Road West (Group 43) ▶ Properties west of Manston Road (Group 47) ▶ Properties on Canterbury Road West, south of Jentex site (Group 48) ▶ Manston Court Caravan Site (Group 6) ▶ Preston Parks (Group 7) ▶ PRoW TE18 ▶ PRoW TR9 ▶ PRoW TR10 ▶ PRoW TR22 ▶ PRoWs between Lydden and West Brook ▶ Royal Air Force Manston Museum Car Park 		

Impact	Mitigation proposed	Post mitigation effect	Proposed plan reference	DCO Reference
		<ul style="list-style-type: none"> ▶ Viewpoint 2 – Manston Road ▶ Viewpoint 3 – Canterbury Road West PRoW ▶ Viewpoint 6 - B2050 western edge of Manston <p>Other effects are not significant</p>		
Noise and Vibration				
Construction noise impacts on residents/community	<ul style="list-style-type: none"> ● There will be no night-time (23:00 to 07:00) construction working during Phase 1 of the Proposed Development; this is not inclusive of start-up and close down times or construction traffic movements. ● The developer will require its contractors to consider mitigation in the following order: <ul style="list-style-type: none"> ▶ Best Practicable Means, including: <ul style="list-style-type: none"> ▶ Noise and vibration control at source - for example the selection of quiet and low vibration equipment, review of construction programme and methodology to consider quieter methods, location of equipment on site, control of working hours, the provision of acoustic enclosures and the use of less intrusive alarms, such as broadband vehicle reversing warnings; and ▶ Screening - for example local screening of equipment, perimeter hoarding or the use of temporary stockpiles. 	No significant effects	<p>Construction Environmental Management Plan</p> <p>Noise and Vibration Management Plan</p>	Requirement 6 (CEMP)

Impact	Mitigation proposed	Post mitigation effect	Proposed plan reference	DCO Reference
	<ul style="list-style-type: none"> ● The recommendations of BS 5228 Code of practice for noise and vibration control on construction and open sites parts 1 and 2¹³, will be implemented, together with the specific requirements of the CEMP. ● The effects of noise and vibration from construction sites will be controlled by introducing management and monitoring processes to ensure that Best Practice Measures (BPM) are planned and employed to minimise noise and vibration during construction. Contractors will prepare a noise and vibration management plan which will set out these processes. The plan will include management and monitoring processes to ensure as a minimum: <ul style="list-style-type: none"> ▶ Integration of noise control into the preparation of method statements; ▶ Ensuring proactive links between noise management activities and community relations activities (see Section 5); ▶ Preparing details of site hoardings, screens or bunds that will be put in place to provide acoustic screening during construction, together with an inspection and maintenance schedule for such features; ▶ Preparing risk assessments to inform structural surveys of buildings and structures which may be affected by vibration from construction; ▶ Developing a noise and vibration monitoring protocol including a schedule of noise and vibration monitoring locations and stages during construction of the Proposed Development when monitoring will be undertaken; ▶ Preparing and submitting Section 61 consent applications; 			

¹³ BS 5228 Code of practice for noise and vibration control on construction and open sites parts 1 and 2,

Impact	Mitigation proposed	Post mitigation effect	Proposed plan reference	DCO Reference
	<ul style="list-style-type: none"> ▶ Undertaking and publishing all monitoring required to ensure compliance with all acoustic commitments and consents; and ▶ Implementing management processes to ensure ongoing compliance, improvement and rapid corrective actions to avoid any potential non-compliance. ● Contractors will seek to obtain consents from the relevant local authority under Section 61 of the Control of Pollution Act 1974¹⁴ for the proposed construction works, excluding non-intrusive surveys. Applications will normally be made to the relevant local authority for a Section 61 consent at least 28 days before the relevant work is due to start. ● Details of construction activities, prediction methods, location of sensitive receivers and noise and vibration levels will be discussed with the relevant local authority, or authorities, both prior to construction work and throughout the construction period. Prediction, evaluation and assessment of noise and vibration as well as discussion between the Developer and its contractors and the relevant local authority will, by necessity, continue throughout the construction period. ● Annex 1 of BS 5228 Code of practice for noise and vibration control on construction and open sites parts 1 and 2¹³ provides a flow diagram demonstrating the process of a Section 61 application. The Developer will seek to agree with local authorities a common format and model consent conditions for Section 61 applications or any dispensations and variations to an existing consent. ● The application for a Section 61 consent will require noise assessments to be undertaken and BPM measures set out to minimise noise associated with construction of the Proposed Development. The Developer's lead contractors will submit the 			

¹⁴ Control of Pollution Act 1974 [online]. Available at: <https://www.legislation.gov.uk/ukpga/1974/40> [Accessed 12/02/2018]

Impact	Mitigation proposed	Post mitigation effect	Proposed plan reference	DCO Reference
	<p>assessment initially to the Developer for review, prior to submission to the relevant local authority.</p> <ul style="list-style-type: none"> The Developer's contractors will carry out noise (and vibration where appropriate) predictions for Section 61 applications. An assessment of the predicted levels will be carried out with reference to the ES Chapter 12: Noise and Vibration. Where it is reasonable and practical to do so, on-Site construction traffic will avoid using the perimeter roads which run in close proximity to sensitive residential development at night. To screen construction noise from sensitive receptors, 2.5m site construction noise barriers will be placed around the perimeter of the construction site compounds, to the south of the internal access road and along perimeter roads used as haul roads where the haul roads are in close proximity to sensitive properties (Figure 12.3a and Figure 12.3b of the ES). 			
Socio-Economics				
<p>Generation of employment opportunities in the construction sector and within airport related industries</p> <p>Reduction in levels on unemployment within the local area (i.e. Thanet)</p>	<ul style="list-style-type: none"> Measures to optimise local recruitment during construction, including possible measures to ensure linkages to local training initiatives and/or voluntary agreements relating to local recruitment. The Applicant aspires to a target of an average of 30% (across the construction phase) of construction jobs to be filled using local labour¹⁵, subject to the availability of local skills. The Applicant would seek to recruit local people at early stages and provide training with the aim of developing skills and retaining local labour through the construction period. 	<p>Local: major beneficial significance</p> <p>Regional: negligible significance</p>	<p>Construction Environmental Management Plan</p>	<p>Requirement 6 (CEMP)</p>

¹⁵ The Applicant would define local labour as those living within a 90-minute commute of Manston Airport, this is based on research by the Impact Assessment Unit at Oxford Brookes University which defined home-based workers as living within a 90-minute commute zone

Impact	Mitigation proposed	Post mitigation effect	Proposed plan reference	DCO Reference
	<ul style="list-style-type: none"> There is further scope to employ those who are currently unemployed; assumption that approximately 1,800 jobs¹⁶ may be provided to those currently unemployed. 			
<p>Disruption to the local road network during construction impacting on employee and customer access</p> <p>Increase in economic activity as a result of temporary construction workers and further, via influx of passengers using the Proposed Development</p> <p>Construction activities leading to an increase in spending in the local economy by contractors and airport employees</p>	<ul style="list-style-type: none"> Carefully designed programme of traffic management during construction to minimise disruption. Specific measures are outlined within the Construction Traffic Management Plan appended to the Traffic Assessment. Scope for additional measures to optimise the spending by contractors in the local economy during the construction phase of the Proposed Development, by voluntary measures to place contracts with local firms and purchase from local suppliers. 	Negligible significance	<p>Construction Traffic Management Plan (inclusive of staff travel plan, traffic routing strategy and traffic timing strategy)</p> <p>Construction Environmental Management Plan</p>	<p>Requirement 6 (CEMP)</p> <p>Requirement 9 (Noise mitigation)</p> <p>Requirement 14 (Traffic management)</p>
<p>Disruption to the local road network during construction impacting on employee and visitor access</p>	<ul style="list-style-type: none"> Carefully designed programme of traffic management to minimise disruption. Specific measures are outlined within the Construction Traffic Management Plan appended to the Traffic Assessment. 	<p>Local: moderate beneficial significance</p> <p>Regional: negligible significance</p>	<p>Construction Traffic Management Plan (inclusive of staff travel plan, traffic routing strategy and traffic timing strategy)</p> <p>Construction Environmental Management Plan</p>	<p>Requirement 6 (CEMP)</p> <p>Requirement 9 (Noise mitigation)</p> <p>Requirement 14 (Traffic management)</p>

¹⁶ Assumption taken from E&H 2017

Impact	Mitigation proposed	Post mitigation effect	Proposed plan reference	DCO Reference
Traffic and Transport				
Changes in the character of traffic (such as increases in HGVs), as a result of construction traffic	<ul style="list-style-type: none"> ● A Construction Traffic Management Plan will be agreed with Kent County Council prior to construction works commencing. The Construction Traffic Management Plan would seek to keep construction traffic on the strategic highway network and avoid sensitive routes and local communities in order to minimise impacts on receptors and manage environmental effects. ● The Construction Traffic Management Plan will manage the daily delivery profiles and control movements and routing of heavy goods vehicles (HGVs) through the following measures: <ul style="list-style-type: none"> ▶ Traffic routing strategy – ensuring vehicles access the site via the most appropriate route and avoid unnecessary conflict with sensitive areas; ▶ Traffic timing strategy – programme vehicle arrival/departures and working hours to lessen the impact on the highway network. A delivery timetable will help minimise queues and delays in the vicinity of the proposed work area by ensuring that HGV delivery vehicles to site area spread across the working day where possible; ▶ Temporary signage – in accordance with the Department for Transport Traffic Signs Manual, Chapter 8¹⁷ to inform local road users of construction access points and the presence of HGVs; ▶ Temporary traffic management – provided on approaches to accesses in the form of traffic warning signs, possible reductions in speed limit signs to ensure safe passage of vehicles; 	Screened out	<p>Construction Environmental Management Plan</p> <p>Construction Traffic Management Plan (inclusive of staff travel plan, traffic routing strategy and traffic timing strategy)</p>	Requirement 6 (CEMP)

¹⁷ Department for Transport (2009). Traffic Signs Manual, Chapter 8 [online]. Available at: <https://www.gov.uk/government/publications/traffic-signs-manual> [Accessed 14/02/2019].

Impact	Mitigation proposed	Post mitigation effect	Proposed plan reference	DCO Reference
	<ul style="list-style-type: none"> ▶ Site accesses designed in accordance with Design Manual for Roads and Bridges 42/95 Geometric Design of Major/Minor Priority Junctions¹⁸; ▶ Staff travel plan – will provide details of how staff will travel to the site by alternative modes in an effort to reduce single occupancy vehicles travelling to the site; ▶ If necessary, all HGV and LGV related to the construction of the proposed works will be identifiable through the use of a vehicle marking scheme; ▶ Qualified banksman will be stationed to manage the construction vehicle operations by walkie talkies as required onsite; and ▶ All vehicles used in the construction of the proposed works will be to Euro standard IV class. The drivers should also avoid idling their engines for large periods of time and keep speeds low. ● During Phase 1, construction will be confined to the hours of 07:30 to 17:30 Monday to Friday and 07:30 to 13:00 Saturday. There is no planned working on Sundays or Bank Holidays. These hours may be subject to seasonal variations and dictated by the construction activity being undertaken and prevailing weather conditions. During Construction Phases 2-4, when the airport would also be operational, construction may need to take place outside of the above hours, including at night. ● A Construction Traffic Management Plan will be developed and implemented, including a Construction Travel Plan which sets out a number of travel planning initiatives including: <ul style="list-style-type: none"> ▶ Travel planning awareness; ▶ Public transport; 			

¹⁸ Highways Agency (2009). Design Manual for Roads and Bridges [online]. Available at: <http://www.standardsforhighways.co.uk/ha/standards/dmrb/> [Accessed 14/02/2019].

Impact	Mitigation proposed	Post mitigation effect	Proposed plan reference	DCO Reference
	<ul style="list-style-type: none"> ▶ Car sharing; ▶ Modal shift monitoring; ▶ Travel Plan Co-ordinator (TPC); and ▶ Planned collections and deliveries to avoid unnecessary journeys. ● In order to establish if there is any damage to the road along the construction vehicle route or core path caused as a result of construction traffic movements, GPS video capture technology will be used to inform a road/core path condition survey, undertaken to the satisfaction of Kent County Council. 			
Changes in character to PRowS: Severance; and Pedestrian delay.	<ul style="list-style-type: none"> ● A Public Right of Way (PRoW) Management Plan has been submitted as part of the DCO application and sets out proposals to retain all pedestrian links and routes that exist currently via diversions if required. As such, impacts on the pedestrian effects will be no worse than they are currently or enhanced with new surfaces and routes. All measures in the PRoW Management Plan will be implemented in accordance with that plan. 		<p>Construction Environmental Management Plan</p> <p>Public Right of Way (PRoW) Management Plan</p>	Requirement 6 (CEMP)
Health and Wellbeing				
Emissions from construction impacting on locals respiratory and cardiovascular health	<ul style="list-style-type: none"> ● CEMP with management measures for dust, on-site plant and construction traffic. 	No significant effects	<p>Construction Environmental Management Plan</p> <p>Construction Traffic Management Plan (inclusive of staff travel plan, traffic routing strategy and traffic timing strategy)</p>	<p>Requirement 6 (CEMP)</p> <p>Requirement 14 (Traffic management)</p>

Impact	Mitigation proposed	Post mitigation effect	Proposed plan reference	DCO Reference
Noise impact on locals from construction phase	<ul style="list-style-type: none"> CEMP with best practicable means to control construction noise. 	No significant effects	Construction Environmental Management Plan	Requirement 6 (CEMP) Requirement 9 (noise mitigation)
Ground and water contamination	<ul style="list-style-type: none"> Ground investigation and risk assessment with remediation during construction if required; storage and secondary containment of chemicals to regulatory standards; drainage design and treatment to avoid contaminated runoff to surface or ground water. 	No significant effects		Requirement 11 (Contaminated land and groundwater) Requirement 13 (Surface and foul water drainage)
Temporary increase in demand for healthcare services from construction workforce	<ul style="list-style-type: none"> Continue engagement with local health stakeholders to consider any impacts on healthcare service capacity due to construction workforce demand. Provide health and wellbeing promotion programme and advice to construction workforce. 	No significant effects	Construction Environmental Management Plan	Requirement 6 (CEMP)
Climate Change				
Climate change impacts on vegetation resilience in compensation areas for SPI/red-listed bird species	<ul style="list-style-type: none"> To ensure that the conservation status of SPI/red-listed birds of conservation concern is maintained, appropriate habitat, using plant species appropriate for the changing climate, will be created prior to commencement of construction within the c.36 ha compensation site (land parcel 1362) south of the Proposed Development. The arable area within the compensation field will contain 'skylark plots' at a density of 2 per ha. 	Not significant	Landscape Masterplan	Requirement 10 (Landscaping)

Impact	Mitigation proposed	Post mitigation effect	Proposed plan reference	DCO Reference
Overwhelming of local drainage system in future flooding events	<ul style="list-style-type: none"> The Environment Agency have agreed under the Outline Drainage Strategy that the drainage system will be designed so that there would be no offsite flooding for a 1% Annual Exceedance Probability (AEP) event with a 40% climate change allowance (scenario agreed with Kent County Council as Lead Local Flood Authority (LLFA)). All surface water will be captured, attenuated within two ponds, treated and then discharged to Pegwell Bay via an existing pump and outfall. 	Not significant	Surface Water Monitoring Strategy / Detailed Plan	Requirement 13 (Surface and foul water drainage)
Contaminated run-off generated by de-icer storage and use entering the groundwater environment following flooding event	<ul style="list-style-type: none"> Storage lagoons will be appropriately sized to account for NPPF climate change allowances, to ensure that treatment facilities continue to function. 	Not significant		Requirement 13 (Surface and foul water drainage)
Potential greenhouse gas (GHG) emissions from vehicles and plant during the construction phase.	<ul style="list-style-type: none"> The contractor will include measures to reduce or limit air quality effects during the construction phase of the Proposed Development. Measures will include avoiding the use of diesel or petrol-powered generators and use mains electricity or battery powered equipment where practicable; ensuring all vehicles switch off engines when stationary — no idling vehicles. A Construction Traffic Management Plan will be produced to manage the sustainable delivery of goods and materials. 	Not significant	Construction Environmental Management Plan Construction Traffic Management Plan (inclusive of staff travel plan, traffic routing strategy and traffic timing strategy)	Requirement 6 (CEMP) Requirement 14 (Traffic management)
Changes in the character of traffic (such as increases in HGVs) as a result of proposed construction traffic.	<ul style="list-style-type: none"> A Construction Traffic Management Plan would be agreed with Kent County Council prior to construction works commencing. The Construction Traffic Management Plan includes a Construction Travel Plan, which includes the following mitigations: <ul style="list-style-type: none"> Traffic routing strategy – ensuring vehicles access the site via the most appropriate route and avoid unnecessary conflict with sensitive areas; 	Not significant	Construction Environmental Management Plan Construction Traffic Management Plan (inclusive of staff travel plan, traffic routing strategy and traffic timing strategy)	Requirement 6 (CEMP) Requirement 14 (Traffic management)

Impact	Mitigation proposed	Post mitigation effect	Proposed plan reference	DCO Reference
	<ul style="list-style-type: none"> ▶ Staff travel plan – will provide details of how staff will travel to the site by alternative modes in an effort to reduce single occupancy vehicles travelling to the site. 			
The effects of GHG emissions from the Proposed Development on the climate.	<ul style="list-style-type: none"> ● The development of a Carbon Minimisation Action Plan, including incorporation of mitigations such as those listed in Table 16.15 in Chapter 16: Climate Change following DCO approval has therefore been committed to. ● An adequate target for reduction of the 78.6 ktCO₂ per annum from non-aviation sources and the 808.7 ktCO₂ per annum from all sources will be set within the Carbon Minimisation Action Plan by the applicant and signed off by the Secretary of State. ● The mitigation suggested in Table 16.15 are indicative of what could be included in the Carbon Minimisation Action Plan and are not an exhaustive list. 	Not significant	Carbon Minimisation Action Plan	Requirement 6 (CEMP)
Major Accidents and Disasters				
Large accidental spillages of oils and other chemicals entering the environment (land or water)	<ul style="list-style-type: none"> ● Fuel, oil and hazardous chemical storage and handling will be minimised in the design of the works and safe working procedures. Method statements for handling these substances and minimising the potential for spillage will be put in place. ● Tanks and stored chemicals will be located away from excavation and high vehicle movements. ● Oils, chemicals and fuels will be stored in designated locations with specific measures to prevent leakage and release of their contents into water receptors, including the siting of the storage area away from the drainage. 	Not significant	<p>Construction Environmental Management Plan</p> <p>Construction Traffic Management Plan (inclusive of staff travel plan, traffic routing strategy and traffic timing strategy)</p> <p>Outline Drainage Strategy</p>	<p>Requirement 4 (Detailed design)</p> <p>Requirement 5 (Detailed design of fuel depot)</p> <p>Requirement 6 (CEMP)</p> <p>Requirement 11 (Contaminated land and groundwater)</p>

Impact	Mitigation proposed	Post mitigation effect	Proposed plan reference	DCO Reference
	<ul style="list-style-type: none"> ● Any large quantity of fuel, chemical, oil (including those of waste) will be located away from the SPZ1 area and drainage routes to Pegwell Bay. ● The risks from accidental spillages or leaks (including those arising as a result of loss of containment from extreme adverse weather) during handling and storage of chemicals and fuels will be mitigated by good working practices (e.g. set out in the CEMP). ● Risks arising from interaction with the operational airport and its facilities (post Phase 1), including communication and control of temporary changes, will be controlled by good working practices. These may include, but are not limited to the following: <ul style="list-style-type: none"> ▶ Appropriate waste management, including its segregation, is undertaken; ▶ Site rules are followed by all those on site; ▶ Appropriate training is taken, and competency tested; ▶ Risk assessments are completed, considering both operational spillages and sources with major accident or disaster potential; and ▶ All chemicals and flammable products are appropriately stored and contained. ● Construction risk management processes with risk reduction to as low as reasonably practicable (ALARP) and adoption of inherent safe design approaches for environmental major accidents and disaster hazards. This will include: <ul style="list-style-type: none"> ▶ Identification of major accident and disaster hazards; ▶ Access consequences and frequency; and ▶ Ensure all risk is ALARP or broadly acceptable by review of all hazards, considering additional measures and implementing all that provide benefit without gross disproportion to the cost. All 		<p>Construction Emergency Plan</p> <p>Site Waste Management Plan</p> <p>Spillage Environmental Response Plan / Environmental Spillage Plan</p> <p>Construction Risk Assessment</p> <p>UXO Threat and Risk Assessment</p>	<p>Requirement 13 (Surface and foul water drainage)</p> <p>Requirement 14 (Traffic management)</p>

Impact	Mitigation proposed	Post mitigation effect	Proposed plan reference	DCO Reference
	<p>measures should be considered based on hierarchy of control (i.e. prevention through to emergency response, recovery and remediation).</p> <ul style="list-style-type: none"> ● Management of Change Procedures to be developed within the Airport Safety and Environmental Management System to support post Phase 1 construction. ● The Construction Emergency Plan will incorporate major accidents and disasters and their response arrangements. ● A Site Waste Management Plan and associated procedures to be adopted. ● Traffic controls and management with collision barriers will be provided where required. ● Historical site risk from previous activities (e.g. UXO and ground instability from tunnelling) minimised prior to construction: Site survey investigations and monitoring programmes will be undertaken to identify any that may be present. If any are found, a plan will be developed for their controlled removal. ● Secure site with restricted access. ● Protection to the runways and taxiways is considered in Chapter 10: Land Quality of the ES. 			
Structural/equipment/civils collapse leading to hazardous substances entering the environment (land or water)	<ul style="list-style-type: none"> ● The risks from construction activities will be mitigated by measures determined by a construction risk assessment in accordance with the CDM Regulations 2015⁶ and good working practices (e.g. set out in the CEMP). ● Adoption of inherent safe design principles in the design plan. Construction risk management with risk reduction to ALARP for environmental major accidents and disasters. 	Not significant	<p>Construction Environmental Management Plan</p> <p>Construction Traffic Management Plan (inclusive of staff travel plan, traffic routing</p>	<p>Requirement 4 (Detailed design)</p> <p>Requirement 5 (Detailed design of fuel depot)</p> <p>Requirement 6 (CEMP)</p>

Impact	Mitigation proposed	Post mitigation effect	Proposed plan reference	DCO Reference
	<ul style="list-style-type: none"> Risks arising from interaction with the operational airport and its facilities (post phase 1), including communication and control of temporary changes, will be controlled by good working practices (e.g. set out in the CEMP). The Emergency Plan will incorporate the identified major accidents and disasters and their response arrangements. Management of Change Procedures to be developed within the Airport Safety and Environmental Management System to support post Phase 1 construction. Traffic controls and management with collision barriers will be provided where required (as further outlined in the Construction Traffic Management Plan and summarised in Section 3.5 and Section 5.10). Secure site with restricted access. Historical site risk from previous activities (e.g. UXO) and ground instability from tunnelling) minimised prior to construction: Site survey investigations and monitoring programmes will be undertaken to identify any that may be present. If any are found a plan will be developed for their controlled removal. 		<p>strategy and traffic timing strategy)</p> <p>Construction Emergency Plan</p> <p>Spillage Environmental Response Plan / Environmental Spillage Plan</p> <p>Construction Risk Assessment</p> <p>UXO Threat and Risk Assessment</p>	<p>Requirement 11 (Contaminated land and groundwater)</p> <p>Requirement 14 (Traffic management)</p>
Serious harm (multiple serious injury or fatality) to people during construction	<ul style="list-style-type: none"> Equipment and storage measures as outlined above. Flammable materials and dangerous chemicals will be stored in a secure location, contained and away from populations, and the public. Control of ignition for flammable materials as required under Dangerous Substances and Explosive Atmospheres Regulations (DSEAR). Management of major accident hazards through construction risk assessment, in accordance with CDM Regulations 2015⁶ and good working practices (e.g. set out in the Construction Safety 	Not significant	<p>Construction Environmental Management Plan</p> <p>Construction Safety Management Plan</p> <p>Construction Emergency Plan</p> <p>Construction Traffic Management Plan</p>	<p>Requirement 4 (Detailed design)</p> <p>Requirement 5 (Detailed design of fuel depot)</p> <p>Requirement 6 (CEMP)</p> <p>Requirement 11 (Contaminated</p>

Impact	Mitigation proposed	Post mitigation effect	Proposed plan reference	DCO Reference
	<p>Management Plan). This will include adoption of inherent safe design principles in the design plan and an Emergency Plan to cover construction activities.</p> <ul style="list-style-type: none"> ● Risks arising from interaction with the operational airport and its facilities (post phase 1), including communication and control of temporary changes, will be controlled by good working practices (e.g. set out in the Construction Safety Management Plan). ● Management of Change Procedures to be developed within the Airport Safety and Environmental Management System to support post Phase 1 construction. ● Construction risk management processes with risk reduction to ALARP and adoption of inherent safe design approaches for major accidents and disaster hazards to people (set out in the Safety Health and Environmental Plan). ● The Emergency Plan will incorporate the identified major accidents and disasters and their response arrangements. ● Traffic controls and management with collision barriers will be provided where required (as further outlined in the Construction Traffic Management Plan and summarised in Section 3.5 and Section 5.10). ● Secure site with restricted access. 		<p>(inclusive of staff travel plan, traffic routing strategy and traffic timing strategy)</p> <p>Construction Risk Assessment</p> <p>Safety Health and Environmental Plan</p>	<p>land and groundwater)</p> <p>Requirement 13 (Surface and foul water drainage)</p> <p>Requirement 14 (Traffic management)</p>
<p>Potential explosion of UXO or ground instability, harm to people and buildings</p>	<ul style="list-style-type: none"> ● Historical site risk from previous activities (e.g. UXO and ground instability from tunnelling) minimised prior to construction. Site survey investigations and monitoring programmes will be undertaken to identify any that may be present. If any are found a plan will be developed for their controlled removal. ● Management of hazards through construction risk assessment in accordance with CDM Regulations 2015⁶ and good working practices in accordance with current guidelines. This will include 	<p>Not significant</p>	<p>Construction Environmental Management Plan</p> <p>Construction Emergency Plan</p> <p>Construction Risk Assessment</p>	<p>Requirement 6 (CEMP)</p> <p>Requirement 15 (Piling and other intrusive works)</p>

Impact	Mitigation proposed	Post mitigation effect	Proposed plan reference	DCO Reference
	adoption of inherent safe design principles in the design plan and an Emergency Plan to cover construction activities.		UXO Threat and Risk Assessment	
Serious damage to designated heritage assets	<ul style="list-style-type: none"> Intrusive investigations to be agreed with Historic England and carried out prior to the commencement of construction activities. 	Not significant	Construction Environmental Management Plan	Requirement 6 (CEMP) Requirement 15 (Piling and other intrusive works)
Flooding and adverse weather	<ul style="list-style-type: none"> Site drainage from hardstanding will be captured on site by the site drainage system. The design basis will include allowance for extreme weather events, and climate change over the design lifetime. Elimination or risk reduction to ALARP will be inherent in the design. An Environmental/Safety Management system will be developed and include major accidents and disasters. An Emergency Plan will be developed. 	Not significant	Construction Environmental Management Plan Construction Emergency Plan Outline Drainage Strategy	Requirement 4 (Detailed design) Requirement 6 (CEMP) Requirement 13 (Surface and foul water drainage)

3. Operation

Table 3.1 Register of Environmental Actions and Commitments – Operation

Impact	Mitigation proposed	Post mitigation effect	Proposed plan reference	DCO Reference
Air Quality				
Congestion on the local road network	<ul style="list-style-type: none"> Agree and enforce a strict routing agreement for incoming and outgoing HGVs, avoiding, where possible, peak traffic flow hours in order to reduce congestion and queuing. 	Not significant	Operation Environmental Management Plan	Requirement 7 (OEMP)
Effects from vehicle emissions on human health and ecological resources	<ul style="list-style-type: none"> Agree and enforce delivery and dispatch schedules for HGVs that avoid, where possible, causing congestion on the local road network and excessive emissions to atmosphere. Also, enforce a “no unnecessary idling” policy for all vehicles on the development site. These should be covered in the Operational Environmental Management Plan. 	Not significant	Operation Environmental Management Plan	Requirement 7 (OEMP)
Effects upon human health and ecological resources from aircraft movements on the ground and during the land and take-off (LTO) cycle	<ul style="list-style-type: none"> Planning of aircraft arrival and departure scheduling to avoid, where possible, over-long idling, taxiing and hold times. Airfield layout design to minimise times taxiing and holding. Use of Fixed Electrical Ground Power (FEGP) to minimise engine/Auxiliary Power Unit (APU) use. Bans on older, dirtier aircraft. 	Not significant	Operation Environmental Management Plan	Requirement 7 (OEMP)

Impact	Mitigation proposed	Post mitigation effect	Proposed plan reference	DCO Reference
Effects upon human health and ecological resources aircraft ground support equipment (GSE) emissions.	<ul style="list-style-type: none"> Operation of a GSE fleet which will be fully electric (zero emission) by Year 20. Diesel GSE largely bought new and meeting current emissions standards. Planning of aircraft arrival and departure scheduling to avoid, where possible, over-long operation of liquid fossil-fuelled GSE. 	Not significant	Operation Environmental Management Plan	Requirement 7 (OEMP)
Effects on human health and ecological resources as a result of emissions from airport operations.	<ul style="list-style-type: none"> Provide funding to Thanet District Council to reinstate the air quality continuous monitor at the ZH3 Thanet Airport location and for passive monitoring using diffusion tubes. This will provide continuous monitoring of NO₂, fine particles (PM_{2.5} and PM₁₀) and SO₂. Emissions mitigation assessment will be provided as detailed in Thanet District Council's Air Quality Technical Planning Guidance 2016. Furthermore, 10% of all business car parking spaces in the Northern Grass Area will be provided with electric vehicle parking, and 10% of all short-term parking at the airport. 	Not significant	Operation Environmental Management Plan	Requirement 7 (OEMP) Permit from the Environment Agency Requirement 13
Odour effects on human receptors from aircraft operations	<ul style="list-style-type: none"> Vapour recovery on avgas (aviation spirit) tanks. Treated water will be discharged to Pegwell Bay rather than to ground with appropriate monitoring of water quality to ensure quality standard is maintained. The discharge will be regulated under a Water Discharge Activity Permit from the EA. Odour will not be routinely monitored, but complaints from members of the public will be recorded and made available to the Local Authority. 	Uncertain	Operation Environmental Management Plan	Requirement 7 (OEMP) Permit from the Environment Agency

Impact	Mitigation proposed	Post mitigation effect	Proposed plan reference	DCO Reference
	<ul style="list-style-type: none"> ● Airfield design and operational measures to minimise the amount of time aircraft have engines running on the ground. ● Use of FEGP to minimise engine use at stand. ● Airfield design to minimise taxi times. ● Design of Jet-A1 fuel tanks to minimise release of vapour to ambient air. 			
Odour effects on human receptors from fuel farm	<p>Recommended mitigation measures (to be reviewed during detailed design state):</p> <ul style="list-style-type: none"> ● Vapour recovery. ● A floating roof design. 	High (would be reduced by recommended mitigation measures)	Operation Environmental Management Plan	Requirement 5 (Detailed design of fuel depot) Requirement 7 (OEMP)
Biodiversity				
Pollution/eutrophication from site discharges	<ul style="list-style-type: none"> ● An Outline Drainage Strategy has been developed (see Chapter 3: Description of the Proposed Development of the ES). The drainage system will be designed to capture, treat and discharge water in a controlled manner. No water will be allowed to infiltrate to ground from any site hardstanding, and water will either be re-used or set to the site treatment facilities (attenuation ponds). Discharge from these ponds will be via a permitted discharge to Pegwell Bay. ● Discharge of treated water to Pegwell Bay, rather than to ground, with appropriate monitoring of water quality to ensure quality standard is maintained. A maximum discharge rate of 150 l/s has been assumed in designing the on-Site attenuation ponds, however at the detailed design 		Drainage Strategy Surface Water Monitoring Strategy / Detailed Plan	Requirement 13 (Surface water and foul drainage)

Impact	Mitigation proposed	Post mitigation effect	Proposed plan reference	DCO Reference
	<p>stage the site drainage network design will need to include consideration of the impact of the rate of discharge at the designated features on Pegwell Bay. Further consultation on this point with Natural England and the Environment Agency is also expected to occur. The proposed pumping rate represents a maximum worst-case scenario and lower rates could be achieved by using a variable rate pump or further attenuating water on site. If further attenuation is required this could be achieved by increasing the surface area of the ponds, by providing limited infiltration of clean run off (e.g. roof drainage), by providing additional attenuation tanks elsewhere on site, by providing additional storage capacity with the drainage network by oversizing pipes, by utilising any spare capacity in the Southern Water drainage network or by using clean run-off water elsewhere on site. The work to refine and improve attenuation and therefore reduce peak discharge rates is expected to be investigated during the detailed design stage of the project which will come after the order is made.</p>			
Habitat Loss	<ul style="list-style-type: none"> • Compensation through off-site habitat creation at the 35.7ha land parcel 1362 (Appendix 7.13 of the ES). Habitats will be managed specifically for the biodiversity value to be higher quality than that occurring on-site. • Off-site habitat creation will include species-rich grassland sward extending to approximately 30.5ha will be created. A Habitat Management Plan will include detail on sward establishment and early management. • Off-site habitat creation will include an area of broad-leaved woodland of approximately 0.8ha. 	Not significant	Habitat Management Plan Mitigation and Habitat Creation Plan	Requirement 8 (Ecological mitigation)

Impact	Mitigation proposed	Post mitigation effect	Proposed plan reference	DCO Reference
	<ul style="list-style-type: none"> Ditches and banks will be created to provide ephemeral water features. 			
Disturbance to/loss of foraging habitat/breeding sites for terrestrial invertebrates	<ul style="list-style-type: none"> Compensation through habitat treatments on Site (e.g. maintenance of a stressed vegetation community along runway edges by permitting short vegetation to grow on shallow substrate upon runway surface), and habitat creation on-Site south of the current southern perimeter fence and within land parcel 1362. Created habitat will be specifically designed with diverse features to encourage invertebrates (e.g. including features typical of open mosaic habitat.) Use of the long grass policy to reduce hazardous bird species on Site. 	Not significant	Habitat Management Plan Mitigation and Habitat Creation Plan Long Grass Policy	Requirement 8 (Ecological mitigation)
Damage to species through disturbance from noise	<ul style="list-style-type: none"> Operational phase measures are set out in the noise mitigation plan (see section 12.7, Chapter 12: Noise and Vibration of the ES). 	Not significant	Noise Mitigation Plan	Requirement 9 (Noise mitigation)
Damage to habitats and / or species from air quality changes through excessive vehicle emissions during operation	<ul style="list-style-type: none"> During operation, agreed delivery and dispatch schedules for HGV's will be enforced to avoid, where possible, congestion on the local road network and excessive emissions to atmosphere. A "no unnecessary idling" policy for all vehicles on the development site is to be implemented and enforced. 	Not significant	Operation Environmental Management Plan	Requirement 7 (OEMP)
Damage to habitats and / or species as a result of emissions from aircraft movements on the ground and during the Landing and Take Off cycle	<ul style="list-style-type: none"> Planning of aircraft arrival and departure scheduling to avoid, where possible, over-long idling, taxiing and hold times. Airfield layout design to minimise times taxiing and holding. Use of FEGP to minimise engine/APU use. 	Not significant	Operation Environmental Management Plan	Requirement 7 (OEMP)

Impact	Mitigation proposed	Post mitigation effect	Proposed plan reference	DCO Reference
	<ul style="list-style-type: none"> Bans on older, dirtier aircraft. 			
Damage to habitats and / or species as a result of emissions from aircraft GSE	<ul style="list-style-type: none"> Operations will involve use of a largely electric GSE fleet. Any diesel GSE will largely be purchased new and meeting current emissions standards. Aircraft arrival and departure scheduling planned to avoid, where possible, over-long operation of liquid fossil-fuelled GSE. 	Not significant	Operation Environmental Management Plan	Requirement 7 (OEMP)
Freshwater Environment				
Poorly managed site drainage from site leads to pollution of water environment	<ul style="list-style-type: none"> An Outline Drainage Strategy has been developed (see Chapter 3: Description of the Proposed Development of the ES). The drainage system will be designed to capture, treat and discharge water in a controlled manner. No water will be allowed to infiltrate to ground from any site hardstanding, and water will either be re-used or set to the site treatment facilities (attenuation ponds). Treatment is likely to consist of aeration within the attenuation pond and an oil-water separator (to be determined as part of the detailed design). Discharge from these ponds will be via a permitted discharge to Pegwell Bay. Mitigation measures will be documented in a Environmental Management Plan and include: <ul style="list-style-type: none"> All drainage actively collected in appropriately sized attenuation pond(s) and treated prior to discharge off-site. Discharge of treated water and clean water to Pegwell Bay and appropriate monitoring of water quality. 	Not significant	Drainage Strategy Operation Environmental Management Plan Surface Water Monitoring Strategy / Detailed Plan	Requirement 13 (Surface and foul water drainage)

Impact	Mitigation proposed	Post mitigation effect	Proposed plan reference	DCO Reference
	<ul style="list-style-type: none"> ▶ All retained drainage pipework would be surveyed to allow the identification of leaks/failures and would be repaired to meet modern standards. ▶ All existing soakaways will be decommissioned and infilled with clean aggregate. ● Permeable paving underlain by an impermeable membrane in the Northern Grass area will provide some treatment of pollutants prior to discharge to the attenuation ponds. 			
Leakage from the on-site waste-water lagoon (s) enters the groundwater environment as a potential pollutant	<ul style="list-style-type: none"> ● The lagoons will be constructed to high standards and monitored. Discharge of treated water and clean water will be to Pegwell Bay rather than to ground. 	Not significant	Operation Environmental Management Plan	Requirement 13 (Surface and foul water drainage)
Leakage from fuel storage tanks and tankers enters the groundwater environment as a potential pollutant	<ul style="list-style-type: none"> ● The following aspects can be considered within the fuel farm design following BAT principles, but these would be reviewed and revised once the final scheme is agreed with the Environment Agency and Southern Water. ● All fuel storage tanks on the fuel farm will be appropriately designed to at least current standards or higher (e.g. double skinned, bunded etc.), including HSG 176 (Storage of Flammable liquids in tanks), EI 1540 (Design, construction, commissioning, maintenance and testing of aviation fuelling facilities), CIRIA C 736 (Containment systems for the prevention of pollution), Guidelines on Environmental Management for Facilities Storing Bulk Quantities of Petroleum, Petroleum Products and Other Fuels; PSLG Buncefield recommendations. 	Not significant	Operation Environmental Management Plan Drainage Strategy Operational Emergency Plan Surface Water Monitoring Strategy / Detailed Plan	Requirement 7 (OEMP) Requirement 5 (Detailed design of fuel depot) Requirement 13 (Surface and foul water drainage)

Impact	Mitigation proposed	Post mitigation effect	Proposed plan reference	DCO Reference
	<ul style="list-style-type: none"> ● Design will be in accordance with the principle to reduce risk to As Low As Reasonably Practicable (ALARP). ● The design will take into account the requirement for primary and secondary containment: <ul style="list-style-type: none"> ▶ Primary containment is around the design of the fuel tanks and associated pipework (materials, thickness); ▶ Secondary containment takes a number of forms. In this case it includes a double skin on a tank; and ▶ Bunding also provides a further level of secondary containment, affording containment to pipework and equipment associated with the tank, but outside of the double skin. The appropriate sizing of bunding around the tanks. Guidelines require that the bunding must have the capacity to contain the largest predictable spill. This is achieved by providing the largest of either 110% capacity of the largest tank within the bund or 25% of the total capacity of tanks within the bund. For this tank farm a high level of integrity is embedded in the design, and each tank is located in an individual bund, so that only one tank is contained within one bund with 110% of the capacity of the tank plus an allowance for 1:100 rainfall event. Bunds to be constructed with adequate protection against collision and designed in accordance with standards. ● Tank and associated equipment will include leak detection, process interlocks and mechanical devices. ● Comprehensive areas of hardstanding across the site with an associated active drainage capture system to collect all surface drainage and hence and any leaks. ● Containment with sealed drainage systems would be applied to bunds and fuel points, preventing the 			

Impact	Mitigation proposed	Post mitigation effect	Proposed plan reference	DCO Reference
	<p>accidental entry of contaminants into sewer/stormwater drainage network.</p> <ul style="list-style-type: none"> ● The fuel farm will have a separate drainage system. Oil interceptors and anti-pollution control valves would be installed to surface water runoff from internal roads. ● Systems of leak detection would be established beneath the tanks. ● The tank, pipework and loading/unloading would be equipped with shutdown to provide effective isolation. Where required this would include automatic detection and isolation systems (e.g. to protect against overflow of tank). ● Appropriate areas of hardstanding, parking and operational buildings would be constructed for the airside bowser fleet. ● Inclusion of hard standing (with high kerbs) and an active drainage capture system to contain spills and prevent them finding a route to ground or a pathway to the Pegwell Bay Outfall. ● An Operational Emergency Plan will be developed and will include provision for major accidents and disasters (see Chapter 17: Major Accidents and Disasters of the ES). ● Regular inspection of tanks and operating facilities and tank integrity monitoring would be required. Bunds and impermeable surfaces should be regularly inspected. ● Deliveries of or storage within cargo units of any chemicals would be to designated controlled and bunded areas, with control levels and alarms used to identify leaks or overflows. 			

Impact	Mitigation proposed	Post mitigation effect	Proposed plan reference	DCO Reference
Spillage during re-fuelling enters the groundwater environment as a potential pollutant	<ul style="list-style-type: none"> Re-fuelling will be in designated areas with active drainage areas and fuel interceptors. Control levels and alarms will be used to identify leaks or overflows. Personnel will be trained in the use of spill kits where applicable, and suitable mitigation measures will be outlined in the Spillage Environmental Response Plan. 	Not significant	<p>Operation Environmental Management Plan</p> <p>Spillage Environmental Response Plan / Environmental Spillage Plan</p>	<p>Requirement 7 (OEMP)</p> <p>Requirement 13 (surface and foul water drainage)</p>
Contaminated run-off generated by de-icer storage and use enters the groundwater environment as a potential pollutant	<ul style="list-style-type: none"> Application of de-icer will only be in designated areas which have active drainage i.e. where the run-off is directed to water treatment lagoons. Specification of de-icer will be determined by the relevant regulation standards. The lagoons will be appropriately sized to account for NPPF climate change allowances, to ensure that treatment facilities continue to function. 	Not significant	Operation Environmental Management Plan	<p>Requirement 7 (OEMP)</p> <p>Requirement 13 (surface and foul water drainage)</p>
Leakage from the drainage network enters the groundwater environment as a potential pollutant	<ul style="list-style-type: none"> The drainage network will be upgraded to modern standards and all discharge will be collected in appropriately sized attenuation ponds and treated prior to off-site discharge. The drainage facilities will allow for the interception and segregation of contaminated water and un-contaminated water (e.g. roof run-off). Ponds will be monitored for possible leakage. To check for leakage from the ponds, it may be appropriate to install a gauge board in both to check that the change in water levels is commensurate with evaporation and discharge. Both evaporation and discharge rates should be monitored on a daily basis when the ponds are in use. It may also be appropriate to place a water quality monitoring borehole downgradient of the ponds which could be sampled if leakage was suspected, though it is noted that boreholes would present a risk for contamination migration to the 	Not significant	Drainage Strategy	Requirement 13 (Surface and foul water drainage)

Impact	Mitigation proposed	Post mitigation effect	Proposed plan reference	DCO Reference
	underlying aquifer and may not be appropriate in this case.			
Leakage from foul sewer connections enters the groundwater environment as a potential pollutant	<ul style="list-style-type: none"> All foul drainage pipework will be surveyed to allow the identification of leaks/failures and these will be repaired to meet modern standards. The location of all foul drainage would be agreed with the Environment Agency and any decommissioned existing drains would be removed, to ensure they do not form pathways for contaminant transport into the ground. Any decommissioned existing drains will be removed to ensure that they do not form pathways for contaminant transport into the ground. 	Not significant	Drainage Strategy	Requirement 13 (Surface and foul water drainage)
Poorly managed fire water disposal enters the groundwater environment as a potential pollutant	<ul style="list-style-type: none"> Proposals for storage and use of any materials for firefighting will need the agreement of the Environment Agency. The application will be in designated areas with active drainage i.e. where run-off is lead to water treatment lagoons. There will not be a fire-fighting training ground on site. Operational procedures to be developed as part of the OEMP to ensure that appropriate spill kits etc are used. 	Not significant	Operation Environmental Management Plan	Requirement 7 (OEMP)
Spilled pesticides enter the groundwater environment as a potential pollutant	<ul style="list-style-type: none"> Pesticides will only be applied to hardstanding areas with active drainage to water treatment works. The airport will develop a Wildlife Hazard Management Plan, Habitat Management Plan, and Long Grass Policy 	Not significant	Operation Environmental Management Plan Wildlife Hazard Management Plan	Requirement 7 (OEMP) Requirement 8 (Ecological mitigation)

Impact	Mitigation proposed	Post mitigation effect	Proposed plan reference	DCO Reference
	to control and manage the use of chemicals to prevent them being discharged to ground/groundwater.		Habitat Management Plan Long Grass Policy	
Pollution from site discharges	<ul style="list-style-type: none"> The discharge from the Site will be regulated under a Water Discharge Activity Permit from the Environment Agency. The Water Discharge Activities permit will consider appropriate measures to ensure the protection of the downstream designated sites and discussed with Natural England and the Environment Agency prior to the commencement of works. 	Not significant	Permit from the EA	
Impacts on local water availability in the public water supply network in the operation phase	<ul style="list-style-type: none"> Water efficiency measures will be incorporated into the development to maximise water re-use and minimise the demand on supply. Water supply to the development are likely to be metered and this would form a part of the water rates agreement with the water company. Water efficiency measures will be embedded at the detailed design stage as grey water re-use systems, rainwater harvesting, water efficient fixtures and fitting etc. The water demand for the operation phase will be agreed with Southern Water and presented in the ES. Development of these measures as a part of the sites detailed design, and agreement of these measures with Southern Water, is expected to form a DCO requirement. 	Not significant		Monitoring/enforcement regime requirement TBC
General impacts on surface and groundwater quality in the operation phase, not specified above	<ul style="list-style-type: none"> Oil separators will be used on drains from roads and car parks to remove hydrocarbons from site run-off. Foul sewerage will be discharged to the local public sewer network, managed by Southern Water. 	Not significant	Operation Environmental Management Plan Emergency Response and Post-Crash Management Plan	Requirement 7 (OEMP) Requirement 13 (Surface and foul water drainage)

Impact	Mitigation proposed	Post mitigation effect	Proposed plan reference	DCO Reference
	<ul style="list-style-type: none"> ● Operational phase plans for the management of on-site spillages will be developed prior to the DCO application or will be expected as requirements on the DCO. These include an OEMP, Emergency Response and Post-Crash Management Plan and a Spillage Environmental Response Plan. ● The integrity of the Pegwell Bay pipe will be tested prior to its use as an operational discharge route, and any appropriate repairs will be undertaken. ● Environmental monitoring of surface waters will be implemented. Monitoring of the airport facilities, cargo units and potentially contaminating activities would be undertaken utilising inspections and regular walkover surveys. ▶ Location of monitoring: monitoring will be undertaken at the outfall of Attenuation Pond 2 (clean pond) or at the outfall of Attenuation Pond 1 (dirty pond) to Pond 2. It is envisaged that monitoring would be required at one of the ponds, rather than both. The principle of monitoring at the Pond 1 outfall has been discussed with the Environment Agency. Pond 1 is "dirty water / treatment" whereas Pond 2 is clean water e.g. roof drainage plus treated water. The outflow from the fuel farm drainage network would also require monitoring. Final decisions on location and approach will depend on what the permitting arrangement is to govern the Pegwell Bay discharge. A surface water drainage discharge to sea would not normally require a Water Discharge Activities Permit, but as indicated in the ES, the sensitivity of the features at Pegwell Bay may require a bespoke arrangement to be agreed with Natural England and the Environment Agency. ▶ Frequency of monitoring: This would need to be varied in response to rainfall events as, due the 		<p>Spillage Environmental Response Plan / Environmental Spillage Plan</p> <p>Surface Water Monitoring Strategy / Detailed Plan</p>	

Impact	Mitigation proposed	Post mitigation effect	Proposed plan reference	DCO Reference
	<p>hydrogeology/climatic factors mentioned above, it is envisaged that there will be periods when the outfalls are not in use and increased frequency could correspond to periods of high de-icer use and rainfall, for example. Monthly monitoring, with increases in frequency, is proposed as a starting point for discussion. There could also be a period of more intense monitoring at the start of operations to give confidence that the treatment system is working (this would be part of the commissioning process). This approach would also include pre- and post-treatment sampling. The development of the monitoring strategy and detailed plan would need to include decisions on trigger levels and control values.</p>			
<p>Impacts on flood risk receptors during the operation phase</p>	<ul style="list-style-type: none"> ● All site-drainage from areas of hardstanding will either be captured for water re-use (in the case of roof-run-off) or captured by the site drainage systems and transferred to the attenuation ponds for treatment and discharge to Pegwell Bay. There will be two ponds (estimated combined capacity of approximately 160,000m³), one to accept potentially contaminated water for storage and treatment and one that accepts clean water. The discharge from the treatment pond will be to the clean pond. ● Infiltration of potentially contaminated surface water will not be allowed. ● The attenuation ponds will be designed to an appropriate capacity with a 40% allowance for climate change. Discharge from these ponds will be via a pipe into Pegwell Bay. The pump will have a maximum capacity of 30l/s. The final site drainage design will be agreed with the Environment Agency. 	<p>Not significant</p>	<p>Surface Water Monitoring Strategy / Detailed Plan</p>	<p>Requirement 13 (Surface and foul water drainage)</p>

Impact	Mitigation proposed	Post mitigation effect	Proposed plan reference	DCO Reference
	<ul style="list-style-type: none"> Foul sewer capacity will be appropriately sized in consultation with Southern Water and the Environment Agency. No surface water will be directed to the public sewer network. Detailed drainage and Sustainable Drainage Systems (SuDS) design will be carried out subsequent to the granting of planning consent and will be approved either via discharge of a condition of the consent, or as part of a discharge permit application. 			
Historic Environment				
Change in setting due to new buildings	<ul style="list-style-type: none"> Visual impact of construction activities would be partially screened by existing bunding, planting and structures within the site. Boundary design and treatment to screen new development, aircraft movements and standing aircraft in views of and from off-site heritage assets, and to reduce potential noise impacts from within the site have been considered as embedded measures of the design of the Proposed Development (Chapter 11: Landscape and Visual Effects; Chapter 12: Noise and Vibration of the ES) 	Significant	Noise Mitigation Plan	Requirement 4 (Detailed design) Requirement 7 (Noise mitigation) Requirement 10 (Landscaping)
Loss of buildings presently housing the museums and their collections	<ul style="list-style-type: none"> The existing museums on site will be safeguarded in their current form along with the memorial gardens (see Chapter 3: Description of the Proposed Development of the ES). The order will not allow any changes to the museum site without a separate application being made. 	Not significant	Landscape Masterplan	Requirement 10 (Landscaping)

Impact	Mitigation proposed	Post mitigation effect	Proposed plan reference	DCO Reference
Indirect effects on off-site designated heritage assets	<ul style="list-style-type: none"> Boundary design and treatment to screen new development, aircraft movements and standing aircraft in views of and from the off-site heritage assets, and to reduce potential noise impacts from within the site have been considered as embedded measures of the design (Chapter 11: Landscape and Visual and Chapter 12: Noise and Vibration of the ES) 	Not significant	Landscape Masterplan	Requirement 10 (Landscaping)
Land Quality				
Pollution incidents due to creation of pathways for the migration of potential contamination	<ul style="list-style-type: none"> Suitable foundation design and piling methods will be implemented to prevent migration of any potential/residual contamination and will be agreed with Southern Water and the Environment Agency prior to the commencement of works. Piling methods will be in accordance with "Piling and Preventative Ground Improvement Methods on Land Affected by Contamination: Guidance on pollution prevention"⁵ and "Piling into contaminated sites". Any removal of contamination beneath the existing runway will be risk based and will weigh advantages of contamination removal against removal of the runway. Remediation of potential residual contaminants at the Jentex tank farm will be undertaken, subject to risk-based assessment. 	Not significant	Operational Environmental Management Plan Spillage Environmental Response Plan / Environmental Spillage Plan Drainage Strategy	Requirement 7 (OEMP) Requirement 11 (Contaminated land and groundwater) Requirement 12 (Protected species) Requirement 15 (Piling and other intrusive works)
Health hazard / Damage to property due to ingress and accumulation of vapour or ground gas resulting in health hazard from vapour or	<ul style="list-style-type: none"> Following the site investigation, buildings will be designed to comply with Building Regulations 2017¹⁹ including, where necessary, ground gas and vapour protection measures such as gas vapour membranes 	Not significant	Operational Environmental Management Plan	Requirement 4 (Detailed design)

¹⁹ Building Regulations 2017 [online]. Available at: <https://www.gov.uk/government/publications/building-amendment-regulations-2017-circular-012017> [Accessed 14/02/2019].

Impact	Mitigation proposed	Post mitigation effect	Proposed plan reference	DCO Reference
explosion/ asphyxiation for users of site buildings	and sub-floor ventilation in buildings and ensuring appropriate ventilation exists in any confined spaces.			
Health hazard due to future maintenance works (particularly any in ground maintenance works) that may disturb any residual contamination	<ul style="list-style-type: none"> The site investigation and subsequent risk assessment will identify whether any further remediation is required. Any removal of contamination beneath the existing runway will be risk based and will weigh advantages of contamination removal against removal of the runway. This might include the use of defined service corridors or clear service trenches so that maintenance workers are not exposed to potential residual contamination. The health and safety file for the construction will include information of ground contamination and will be kept and used to develop risk assessment and method statement including mitigation measures to address these risks in line with health and safety legislation during operational phase. 	Not significant	Operational Environmental Management Plan	Requirement 7 (OEMP) Requirement 11 (Contaminated land and groundwater)
Health hazard due to, or pollution incidents resulting from, spillages during re-fuelling	<ul style="list-style-type: none"> The risks from accidental spillages/leaks during handling and storage of chemicals and fuels will be mitigated through compliance with the COSHH Regulations 2002⁷ and the Management of Health and Safety at Work Regulations 1999^{cii}. Fuel, oil and chemical storage and handling will be minimised in the design of the works and safe working procedures / method statements for handling fuel and minimising the potential for spillage will be put in place. The risks from accidental spillages/leaks during handling and storage of chemicals and fuels will be mitigated by pollution prevention measures and good 	Not significant	Operation Environmental Management Plan Spillage Environmental Response Plan / Environmental Spillage Plan	Requirement 7 (OEMP) Requirement 10 (Landscaping) Requirement 13 (Surface and foul water drainage)

Impact	Mitigation proposed	Post mitigation effect	Proposed plan reference	DCO Reference
	<p>working practices in accordance with current guidelines.</p> <ul style="list-style-type: none"> Re-fuelling will be in designated areas with active drainage areas and fuel interceptors. Different treatment methods will be considered, light liquid separator, activated sludge aeration tank and/or forced bed aeration, to treat pollutants with will include exhaust fumes, fuel and lubricant spillages. Control levels and alarms will be used to identify leaks or overflows. Fuelling system will include automatic shut off drainage system whilst vehicles will be on refuelling stand. 			
Health Hazard / Pollution incidents due to leakage and / or failure from fuel storage tanks	<ul style="list-style-type: none"> Further site investigations will be undertaken to inform the detailed design of the fuel farm facility. The fuel farm will largely be located in SPZ2 with only a small piece in SPZ1. All fuel infrastructure will be in SPZ2 (according to most recent development plans (dated 26/10/2017)). Design will be undertaken beyond BAT and will include: bund construction, specification of double bunded tanks, bund to be underlain by impermeable membrane (e.g. visqueen), joints to be sealed with a hydrophobic sealant to prevent leakage, and concrete to include self-sealing material (e.g. xypex) and to be specified to water impermeable standard with additional reinforcement to limit cracks to e.g. <0.2 mm. The new fuel farm facility will incorporate suitable blast protection and other measures to control and mitigate any risks to nearby commercial, residential and other property from an incident at the fuel farm. The design 	Not significant	<p>Operational Environmental Management Plan</p> <p>Spillage Environmental Response Plan / Environmental Spillage Plan</p>	<p>Requirement 5 (Detailed design of fuel depot)</p> <p>Requirement 7 (OEMP)</p> <p>Requirement 13 (Surface and foul water drainage)</p>

Impact	Mitigation proposed	Post mitigation effect	Proposed plan reference	DCO Reference
	<p>of these measures will be discussed with the Health and Safety Executive.</p> <ul style="list-style-type: none"> A new airside/landside security facility will be installed in the location of the existing 'emergency access gate' adjacent to the Jentex facility to provide direct airside access for the fuel farm. Re-fuelling will be in designated areas with active drainage areas and fuel interceptors. Control levels and alarms will be used to identify leaks or overflows. Regular tank inspections will be conducted. Fuelling system will include automatic shut off of drainage system whilst vehicles will be on refuelling stand. In the bunded area, sump drainage will be to a low point from where it will be manually pumped into the drainage system (if clean) or to tanker if contaminated. All pipes will go over the bund wall (no below ground pipes). 			
Pollution incidents resulting from pesticide use	<ul style="list-style-type: none"> Pesticides will only be applied to hardstanding areas with active drainage to water treatment works. The airport will develop a Habitat Management Plan to control and manage the use of chemicals to prevent them being discharged to ground. There may be a need to control leatherjackets and other pests. In such circumstances a suitable licensed contractor will be employed to carry out such works in accordance with the provisions of the order relating to Pollution Prevention and Control. Environmentally compatible control of leatherjackets and similar bird attractants is possible and would be handled through the advice of an agronomist who is specifically qualified to assess the best available products at the time of use. All such products are subject to European Union rules and regulatory compliance. The airport will develop a Wildlife Hazard Management Plan, Habitat 	Not significant	<p>Operational Environmental Management Plan</p> <p>Wildlife Hazard Management Plan</p> <p>Habitat Management Plan</p> <p>Long Grass Policy</p>	<p>Requirement 7 (OEMP)</p> <p>Requirement 8 (Ecological mitigation)</p> <p>Requirement 12 (Protected species)</p> <p>Requirement 13 (Surface and foul water drainage)</p>

Impact	Mitigation proposed	Post mitigation effect	Proposed plan reference	DCO Reference
	Management Plan and Long Grass Policy to control and manage the use of chemicals to prevent them being discharged to ground.			
Permeation of plastic pipes by contaminants	<ul style="list-style-type: none"> The intrusive investigation will inform the package of measures to be included within the detailed design, which could include use of appropriate type and material specification of potable water pipes and other buried services (e.g. use of barrier pipe and/or clean service trenches). 	Not significant	Operational Environmental Management Plan Drainage Strategy	Requirement 4 (Detailed design)
Contaminated run-off generated by de-icer storage and use	<ul style="list-style-type: none"> Application of de-icer will only be in designated areas with active drainage where the run-off is lead to water treatment lagoons. Different treatment methods will be considered to treat de-icing and washing agents. Consultation on the types of de-icer to be used will be undertaken with the Environment Agency, so that were possible lower risk alternatives could be used. 	Not significant	Operational Environmental Management Plan	Requirement 7 (OEMP) Requirement 13 (Surface and foul water drainage)
Landscape and Visual				
Potential loss or damage to valued vegetation (including tree roots as a result of construction activity) and screening elements	<ul style="list-style-type: none"> Vegetation /tree survey and protection plans considered as part of the design process. New tree planting to be undertaken to replace that lost. The design of new planting has been located to deliver screening and softening of large-scale built form and is proposed along the southern side of Manston Road (north of the Cargo Facilities) and around the Aviation Business Park. Further planting is proposed east of Spitfire Way. Typical proposed species are likely to be native and non-berrying so as to reduce bird attraction. The width of the planted 	Not significant	Operational Environmental Management Plan Landscape Masterplan Tree Survey and Protection Plans	Requirement 7 (OEMP) Requirement 8 (Ecological mitigation) Requirement 10 (Landscaping) Requirement 12 (Protected species)

Impact	Mitigation proposed	Post mitigation effect	Proposed plan reference	DCO Reference
	<p>buffers along the perimeter of the business park is typically 45m whilst elsewhere it ranges from 25-30 m with planting densities at 4 m centres in line with recommendations from the Civil Aviation Authority.</p>			
Direct or indirect effects on valued characteristics, special qualities and character	<ul style="list-style-type: none"> Incorporation of enhanced landscape/architectural design, the provision of a landscape masterplan and landscape management to reduce effects of landscape character and ensure that the nature of these effects is neutral or positive as far as possible. The use of building materials, detailing and finish for the roofs and facades of proposed buildings that respond in a positive way to the existing landscape context. However, these details are not yet available so cannot be used to inform the assessment. In terms of overflying and the potential effects on tranquillity, the noise mitigation plan has been developed in line with the CAP 1520: Draft Airspace Design Guidance. 	Not significant	<p>Landscape Masterplan</p> <p>Noise Mitigation Plan</p>	<p>Requirement 4 (Detailed design)</p> <p>Requirement 9 (Noise mitigation)</p> <p>Requirement 10 (Landscaping)</p>
<p>Changes to existing views, visual amenity and scenic quality:</p> <ul style="list-style-type: none"> Introduction of new large-scale features to the view; Alteration to the landscape character of the view; Loss of or disruption to existing views of skylines; 	<ul style="list-style-type: none"> The provision of screening vegetation as detailed above around the Aviation Business Park, the southern side of Manston Road (north of the Cargo Facilities) and east of Spitfire Way. Localised bunding offers further visual screening in key locations by raising the ground level for planting. It is anticipated that the design of the buildings will be of high quality and that the design treatment, detailing and materials will be used to mitigate the apparent scale and soften the appearance of the buildings. However, these details are not yet available so cannot be used to inform the assessment. 	<p>Significant:</p> <ul style="list-style-type: none"> residents of four two-storey properties in north of Allan Grange Lane properties (Group 21) residents of two two-storey properties in south of Cheeseman's Farm properties (Group 22) 	<p>Landscape Masterplan</p> <p>Public Rights of Way (PRoW) Management Plan</p>	<p>Requirement 2 (Time limits)</p> <p>Requirement 4 (Detailed design)</p> <p>Requirement 10 (Landscaping)</p>

Impact	Mitigation proposed	Post mitigation effect	Proposed plan reference	DCO Reference
<ul style="list-style-type: none"> ▶ Changes to perceptions if movement through increased traffic (including HGV) and air movements; and ▶ Visual effects resulting from light pollution 		<ul style="list-style-type: none"> ▶ Vincent Farm (Group 23) ▶ Garden Cottage and Leo Cottage of Preston Road properties (Group 25) ▶ Manston properties- Preston Road (Group 31) ▶ Manston- properties on Northern section of High Street (Group 32) ▶ Manston – Properties in southern section of High Street (Group 33) ▶ Rose Farm and Pounces Cottages (Group 35) ▶ Bell Davies Drive (Group 36) ▶ Terraced and semi-detached properties on the eastern side of 		

Impact	Mitigation proposed	Post mitigation effect	Proposed plan reference	DCO Reference
		<p>Manston Court Road (Group 38)</p> <ul style="list-style-type: none"> ▶ Northern most properties around Manston Court (Group 39) ▶ Northern semi-detached properties on western side of Manston Court Road (Group 40) ▶ Southern terraced properties on western side of Manston Court Road (Group 41) ▶ Jubilee Cottages on Manston Road (Group 42) ▶ Properties in northern Cliffs End, north of Canterbury Road West (Group 43) ▶ Properties west of Manston Road (Group 47) ▶ Properties on Canterbury Road West, south of 		

Impact	Mitigation proposed	Post mitigation effect	Proposed plan reference	DCO Reference
		<p>Jentex site (Group 48)</p> <ul style="list-style-type: none"> ▶ Manston Court Caravan Site (Group 6) ▶ Preston Parks (Group 7) ▶ PRoW TE18 ▶ PRoW TR9 ▶ PRoW TR10 ▶ PRoW TR22 ▶ PRoWs between Lydden and West Brook ▶ Royal Air Force Manston Museum Car Park ▶ Viewpoint 2 – Manston Road ▶ Viewpoint 3 – Canterbury Road West PRoW ▶ Viewpoint 6 - B2050 western edge of Manston <p>Other effects are not significant.</p>		

Impact	Mitigation proposed	Post mitigation effect	Proposed plan reference	DCO Reference
Visual effects resulting from light pollution	<ul style="list-style-type: none"> <li data-bbox="488 347 1055 592">● Airport Lighting: <ul style="list-style-type: none"> <li data-bbox="510 395 1055 592">▶ The airport lighting has been designed to achieve compliance with the International Commission on Illumination (CIE) Guide: CIE 150:2003 Guide on the Limitation of the Effects of Obtrusive Light from Outdoor Lighting Installations for Environmental Zone E2: Rural low district brightness - village or relatively dark outer suburban locations. <li data-bbox="510 619 1055 903">▶ The luminaires use high efficiently, low energy LED lamps and the luminaires are designed to shine their light down and by carefully controlling cut off angles the luminaires minimise any upward light pollution to less than 2.5% of luminaire flux for the total installation that goes directly into the sky. Lighting levels are minimised with higher lighting levels only used where they are needed to comply with the minimum recommend lighting standards such as for the airport aprons. <li data-bbox="488 927 1055 1369">● Northern Grass Lighting: <ul style="list-style-type: none"> <li data-bbox="510 975 1055 1145">▶ The proposed development has been designed to achieve compliance with the CIE Guide: CIE 150:2003 Guide on the Limitation of the Effects of Obtrusive Light from Outdoor Lighting Installations for Environmental Zone E2: Rural low district brightness - village or relatively dark outer suburban locations. <li data-bbox="510 1173 1055 1369">▶ The luminaires use high efficiently, low energy LED lamps and the luminaires are designed to shine their light down and by carefully controlling cut off angles the luminaires minimise any upward light pollution to less than 2.5% of luminaire flux for the total installation that goes directly into the sky. The lighting design will meet a boundary condition of a maximum 	Not significant	Operational Environmental Management Plan	Requirement 4 (Detailed design) Requirement 7 (OEMP)

Impact	Mitigation proposed	Post mitigation effect	Proposed plan reference	DCO Reference
	of 1Lux in order to avoid any obtrusive light into adjoining properties.			
Noise and Vibration				
Operational noise from aircraft, road traffic and associated development	<ul style="list-style-type: none"> A 3m acoustic fence will be erected on the southern and eastern perimeter of the fuel farm. The location of the designated Engine Ground Runs (EGR) test area will be chosen in order to reduce the effects of noise. The modelled EGR test area is on the runway and 50m east from the runway centre. It is forecast that the number of EGRs at this test area will not exceed 50 tests per calendar year and the typical EGR will be undertaken at an engine thrust setting of idle (i.e. less than 25% power). Furthermore, modelling assumes no open-field EGRs will take place between 23:00 and 07:00. To reduce the run time of APU, all stands will be served by FEGP. It is expected that for freight APU will last for approximately 30 seconds per arrival onto stand and will no APU will then be used on stand until pushback. For passenger aircraft it is assumed that APU will last for approximately 12 minutes and 45 seconds per aircraft arrival onto stand, this relates to 50% of aircraft using APU for 25 minutes and the other 50% only using APU for 30 seconds. Due to the proximity of the fuel farm to residential receptors, there will be no deliveries to the fuel farm during the hours of 23:00 and 07:00. Reasonable steps to minimise noise from the airport related business development on the Northern Grass 	<p>Significant (only for aircraft noise)</p> <p>Not significant (road traffic noise and associated development noise)</p>	<p>Noise Mitigation Plan</p> <p>Operation Environmental Management Plan</p>	<p>Requirement 3 (Detailed masterplans)</p> <p>Requirement 7 (OEMP)</p> <p>Requirement 9 (Noise mitigation)</p> <p>Requirement 10 (Landscaping)</p>

Impact	Mitigation proposed	Post mitigation effect	Proposed plan reference	DCO Reference
	<p>area include implementing the following design principles:</p> <ul style="list-style-type: none"> ▶ A landscaped area has been provided between the proposed business park and the houses immediately adjacent to its eastern boundary. This area will be safeguarded in future design iterations in order to protect the residential properties during construction and operation; ▶ The buildings which will generate the least noise will be located in the most sensitive areas of the site close to existing residential development. Such activities could include offices, parkland/greenspace, attenuation ponds, the museums and associated facilities; ▶ Warehouse buildings shall be orientated such that loading/unloading activities face away from any existing residential dwellings; ▶ Doors or other openings on building facades facing existing residential dwellings shall be minimised or avoided. This is most important for industrial buildings but may also include other buildings where evening, weekend or night-time activities occur; and ● Internal vehicular routes shall be located away from the most sensitive parts of the site and buildings shall be used to screen road noise from existing residential buildings. <p>Assessments of industrial and commercial sound (based on the principles set out in BS4141) from aviation related infrastructure and fixed plant not essential to the operation and maintenance of aircraft:</p>			

Impact	Mitigation proposed	Post mitigation effect	Proposed plan reference	DCO Reference
	<ul style="list-style-type: none"> <li data-bbox="488 347 1055 483">● Specify noise limits and incorporate acoustic requirements into contract documents such that they will apply to the design of all the fixed plant that are to be installed and operated as part of the Proposed Development. <li data-bbox="488 507 1055 563">● Determine the relevant background levels and establish these jointly with the relevant local authorities. <li data-bbox="488 587 1055 675">● Procure, install and commission fixed plant, including sound attenuation equipment that meets the specification requirements. <li data-bbox="488 699 1055 802">● Before formal operation of the fixed plant, complete a standard suite of acceptance tests as necessary to demonstrate that the operational sound levels achieve the design criteria. <div style="background-color: #f0f0f0; padding: 10px; margin: 10px 0;"> <ul style="list-style-type: none"> <li data-bbox="488 863 1055 1058">● The airport will be subject to an annual quota during the Night Time Period (23:00 – 07:00) of 3,028. East take-off or landing at the airport during the Night Time period is to count towards this annual quota. Emergency flights and flights operated by relief organisations for humanitarian reasons will not count towards this quota. </div> <ul style="list-style-type: none"> <li data-bbox="488 1114 1055 1369">● A noise insulation scheme (as detailed in the Noise Mitigation Plan (NMP)) for residential properties will be offered by the airport operator to help avoid significant adverse effects on health and quality of life. An approved contractor will be appointed to manage the installation of the insulation and ventilation. The scheme will take into account both day and night time noise exposure. Eligibility for the scheme is consistent with current and emerging Government policy. 			

Impact	Mitigation proposed	Post mitigation effect	Proposed plan reference	DCO Reference
	<ul style="list-style-type: none"> ● Where upon application to the airport operator, the freeholder owner of a residential property (or leasehold occupier with written consent to apply from the freeholder) is deemed eligible for assistance under the noise insulation scheme, they will receive £10,000 towards acoustic insulation and ventilation. ● Residential properties with habitable rooms within the 63dB LAeq (16 hour) day time contour will be eligible for the payment detailed above. ● Residential properties which are not eligible as above, but which have bedrooms which fall within the 55dB LAeq (8 hour) contour will be eligible for the payment detailed above. <div style="background-color: #f0f0f0; padding: 10px; margin: 10px 0;"> <ul style="list-style-type: none"> ● The airport operator will provide reasonable levels (as defined in the NMP) of noise insulation and ventilation for schools and community buildings within the 60dB LAeq (16 hour) day time contour. ● The airport operator will assess the need for mitigation in all schools within the 50 dB LAeq (16 hour) day time contour. </div> <ul style="list-style-type: none"> ● A relocation assistance scheme will be offered by the airport operator to enable those homeowners exposed to the highest levels of airport related noise to move away from the airport. ● A successful applicant to the relocation assistance scheme will receive £5,000 plus 2.5% of the purchase price of the property up to a maximum of £15,000. ● Owners of residential properties within the 69dB LAeq (16 hour) contour will be eligible for the payment 			

Impact	Mitigation proposed	Post mitigation effect	Proposed plan reference	DCO Reference
	<p data-bbox="535 347 1039 395">detailed above if they meet the criteria detailed in the NMP.</p> <ul data-bbox="488 472 1055 1313" style="list-style-type: none"> <li data-bbox="488 472 1039 552">● All training flights taking place at Manston Airport will be subject to the movement cap for General Aviation (38,000 movements per annum). <li data-bbox="488 579 1055 715">● There will be no open field testing of jet engines during the Night Time Period (23:00 and 07:00). Any daytime open field testing will take place only within the airfield itself and in areas already used by aircraft in normal operations. <li data-bbox="488 742 994 821">● The airport operator will establish a policy which minimises the use of reverse thrust expect where operationally essential. <li data-bbox="488 849 1016 984">● Aircraft operators will be encouraged to keep noise disturbance to a minimum by operating a low power/low drag procedure subject to ATC speed control requirements and the maintenance of safe operation of the aircraft. <li data-bbox="488 1011 1055 1235">● When weather conditions allow, and taking into account other operational and safety considerations including runway utilisation, the airport operator will seek to operate take-offs from Runway 28 and landings on Runway 10 subject to such operations being made in accordance with Civil Aviation Authority guidance and the aircraft operator's own limitations and safety management systems. <li data-bbox="488 1262 965 1313">● The airport operator will implement the Wake Turbulence Policy at Appendix 2 of the NMP. 			

Impact	Mitigation proposed	Post mitigation effect	Proposed plan reference	DCO Reference
	<ul style="list-style-type: none"> ● Permanent fixed noise monitoring terminals will be located under each of the aircraft departure flight paths at a distance of 6.5km from the start of take-off roll. ● During the Day Time Period the operator of any departing aircraft that exceeds 90dB LASmax at the relevant noise monitoring terminal will be subject to a penalty of £2,000 and a further penalty of £150 for each additional decibel exceeded above 90dB LASmax. The level of the fines levied shall be increased on an annual basis in line with CPI inflation. ● The operator of any departing aircraft between 06:00 and 07:00 that exceeds 82dB LASmax at the relevant noise monitoring terminal will be subject to a penalty of £2,000 and further penalties of £150 for each additional decibel exceedance above 82dB LASmax. The level of the fines levied shall be increased on an annual basis in line with CPI inflation. <div style="background-color: #f0f0f0; padding: 10px; margin-top: 10px;"> <ul style="list-style-type: none"> ● The airport operator will install a Noise and Track Keeping System (NTK system) which will track aircraft in flight. ● Through the Airspace Change Process, the airport operator will seek to establish NPRs²⁰ which will be designed to avoid overflying of densely populated areas. ● The airport operator will require each aircraft operator to ensure that 95% of all departures within a calendar year remain within the NPR²⁰. ● Any aircraft operator which fails to meet the target above and subsequently fails to work collaboratively </div>			

²⁰ 'NPR' means a specific flight path which aircraft with a maximum take-off weight in excess of 5700 kg are to follow up until an altitude of 4,000 ft or as directed by ATC.

Impact	Mitigation proposed	Post mitigation effect	Proposed plan reference	DCO Reference
	<p>with the airport operator after being notified of persistent departures outside of the NPR²⁰s will be subject to a track keeping penalty of £500 per aircraft departure.</p> <ul style="list-style-type: none"> ● The airport operator will establish a Community Consultative Committee in accordance with section 35 of the Act and with the guidance contained in "Guidelines for Airport Consultative Committees" (Department for Transport, 17 April 2014). This will comprise representatives from Thanet District Council, Dover District Council, Canterbury District Council, users of the airport and community representatives. ● The airport operator will produce an annual report to be submitted to the Community Consultative Committee that will include all information as stipulated in the NMP. A separate quarterly report will be submitted to the community consultative committee that provides information relating to any complaints received and how they have been addressed. <ul style="list-style-type: none"> ● The airport operator will establish a Community Trust Fund into which all penalties applied under paragraphs 16 and 17 of the NMP will be paid. ● The proceeds of the fund established under paragraph 9.1 of the NMP will be applied to community projects within the 50 dB LAeq (16 hour) day time contour and 40 dB LAeq (8 hour) night time contours. ● The airport operator will contribute £50,000 per annum to the Community Trust Fund. 			

Socio-Economics

Impact	Mitigation proposed	Post mitigation effect	Proposed plan reference	DCO Reference
Reduction in levels of unemployment within the local area	<ul style="list-style-type: none"> ● Measures to optimise local recruitment during operation, including possible measures to ensure linkages to local training initiatives and/or voluntary agreements relating to local recruitment. ● There is further scope to employ those who are currently unemployed; assumption that approximately 1,800 jobs²¹ may be provided to those currently unemployed. ● Proposed initiatives by the Applicant are inclusive of the following: <ul style="list-style-type: none"> ▶ Working with East Kent College (or another party such as Canterbury Christ Church) to locate an aviation college on or close to the Proposed Development site; ▶ Providing practical support to the long-term unemployed (as per Stansted Airport Skills Academy) such as: <ul style="list-style-type: none"> ○ Informal 'meet the employer' events, interview preparation; ○ Help with CVs; ○ Careers guidance; ▶ Financial support such as paying for public transport to interviews and training sessions; ▶ Working with local councils and third sector organisations to help promote job opportunities to local people, particularly to the long-term unemployed; 	<p>Local: major beneficial significance</p> <p>Regional: negligible / minor beneficial significance</p>		

²¹ Assumption taken from E&H 2017

Impact	Mitigation proposed	Post mitigation effect	Proposed plan reference	DCO Reference
	<ul style="list-style-type: none"> ▶ Working with Further Education (FE) and Higher Education (HE) to promote apprenticeships at all levels; ▶ Working with FE/HE to develop courses (where not currently available) relevant to the job opportunities created by the operation of the Proposed Development; ▶ Working with other employers to provide 'hands on' training opportunities; and ▶ Working with other employers to provide equipment (such as out of service aircraft/aircraft parts) to support FE/HE delivery of courses. 			
Aircraft noise and traffic volumes during operation impacting on employees and customers of local businesses	<ul style="list-style-type: none"> ● Traffic control during operation (refer to the Airport Surface Access Strategy and Traffic Plan, appended to the Transport Assessment). 	Negligible significance	Airport Surface Access Strategy Traffic Plan	Requirement 7 (OEMP)
Aircraft noise during operation impacting on amenity and tourism	<ul style="list-style-type: none"> ● Noise control during operation to reduce effects on amenity. 	Local: moderate significance Regional: no significant effect	Noise Mitigation Plan	Requirement 9 (Noise mitigation)
Traffic and Transport				
Changes in the character of traffic (such as increases in traffic volume), as a result of operation of the Proposed Development	<ul style="list-style-type: none"> ● An Airport Surface Access Strategy has been submitted as part of the DCO application. The Airport Surface Access Strategy identifies the physical measures to maximise the multi modal accessibility to the site, including identification of bus / rail interchange opportunities, bus provision proposals and pedestrian improvements and linkages, including crossing points, as well as setting 	Receptor 12: negligible to not significant Receptor 20: significant Receptor 23: negligible	Airport Surface Access Strategy Public Rights of Way (PRoW) Management Plan Travel Plan	Requirement 7 (OEMP)

Impact	Mitigation proposed	Post mitigation effect	Proposed plan reference	DCO Reference
	<p>out the vehicular access. All measures in the plan will be implemented in accordance with that plan, however, the key features are outlined below for reference:</p> <ul style="list-style-type: none"> ▶ Provision of a shuttle bus from Ramsgate Station; ▶ Provision for bus drop off near the entrance to the passenger terminal; ▶ Proposal to enhance as appropriate local bus services to accommodate increase staff in the area; ▶ Internal road network designed to accommodate bus movements as necessary; and ▶ A moved and upgraded bus stop on Spitfire Way near the junction with Manston Road. <p>● A Transport Assessment (TA) has been submitted to support the DCO application and identifies the off-site highway works to improve junctions and ensure 'nil-detriment' as a result of the Proposed Development, thereby addressing environmental effects on receptors such as driver delay. Off-site mitigation also considers the effects on pedestrian and incorporates improvements such as footway provision and crossing facilities to address this. Specific proposals are as follows:</p> <ul style="list-style-type: none"> ▶ Junction 2: A299 / A256 / Cottingham Link Rd <ul style="list-style-type: none"> ▶ Widening of the eastern arm, improvements to junction road markings with aim of equal lane usage. ▶ Junction 4: A299 / B2190 	<p>Receptor 24: not significant</p> <p>Receptor 25: negligible to not significant</p> <p>Receptor 26: not significant</p>	<p>Car Parking Strategy</p>	

Impact	Mitigation proposed	Post mitigation effect	Proposed plan reference	DCO Reference
	<ul style="list-style-type: none"> ▶ Widening the eastern arm and providing a flared approach as well as improvements to the road markings at the junction. ▶ Junction 6: A299 / Seamark Rd / A253 / Willetts Hill <ul style="list-style-type: none"> ▶ Minor physical improvements as well as improvements to the road markings at the junction. ▶ Junction 7: A299 / A28 <ul style="list-style-type: none"> ▶ Improvements to signage and carriageway markings. ▶ Junction 12: Manston Road / B2050 / Spitfire Way <ul style="list-style-type: none"> ▶ Provision of a new four arm signalised junction with pedestrian crossing facilities. ▶ Junction 13: Manston Court Road / B2050 <ul style="list-style-type: none"> ▶ Provision of a new three arm signalised junction with pedestrian crossing facilities linked to the signalised junction proposals for the main airport terminal access. ▶ Junction 15: Manston Rd / Hartsdown Rd / Tivoli Rd / College Rd / Nash Rd <ul style="list-style-type: none"> ▶ Provision of new signal head locations and revised stage sequence operation. Also proposals to change the road markings at the junction. ▶ Junction 16: Ramsgate Rd / College Rd / A254 / Beatrice Rd <ul style="list-style-type: none"> ▶ Provision of new stop line and signal head locations as well as a revised stage 			

Impact	Mitigation proposed	Post mitigation effect	Proposed plan reference	DCO Reference
	<p>sequence operation. Scheme also includes proposals to change the road markings at the junction.</p> <ul style="list-style-type: none"> ▶ Junction 20: A256 (N) / A256 (S) / Manston Road <ul style="list-style-type: none"> ▶ Provision of a large new 4 arm signalised junction arrangement with relevant pedestrian crossings, although noting that this would be unnecessary as the Manston Green development scheme has recently secured a £2.5 million grant towards the delivery of the roundabout improvement and road infrastructure. Testing of the proposed roundabout design will be required. ▶ Junction 21: A299 / A256 / Sandwich Rd / Canterbury Rd E /Haine Road <ul style="list-style-type: none"> ▶ Increase in flare length on approach to the junction and increase to entry widths. Also, proposals for revised signal stage timings and staging. ▶ Cycle parking would be provided at all elements of the proposed development in accordance with the appropriate KCC guidance. <ul style="list-style-type: none"> ● A Travel Plan for the Proposed Development has been provided to support the DCO application. The Travel Plan sets out initiatives to enable and encourage sustainable travel by public transport, cycling and walking and to reduce and discourage car travel in order to minimise impacts on receptors and manage environmental effects. All measures in the Travel Plan will be implemented in accordance 			

Impact	Mitigation proposed	Post mitigation effect	Proposed plan reference	DCO Reference
	<p>with that plan, however, the key features are outlined below for reference:</p> <ul style="list-style-type: none"> ▶ Cycling and walking routes should be extended to the entrances of the terminal building; ▶ To support and encourage travel to work by walking and cycling, adequate shower and changing facilities and secure cycle parking should be provided; and ▶ Influencing travel behaviour measures, including sustainable travel information provision and incentives to travel sustainably through public transport. <ul style="list-style-type: none"> ● A PRoW Management Plan has been submitted as part of the DCO application and sets out proposals to retain all pedestrian links and routes that exist currently via diversions if required. As such, impacts on the pedestrian effects will be no worse than they are currently or enhanced with new surfaces and routes. All measures in the PRoW Management Plan will be implemented in accordance with that plan, however, the key measures are outlined below for reference: <ul style="list-style-type: none"> ▶ TR8 will be diverted along the edge of the new proposed perimeter fence of the Airport. The route will remain as it currently is, until it is diverted onto a new alignment along the fence. The previous route will be permanently extinguished and the new route permanently established. This will be done early in the project life cycle, so it is established before major works take place; ▶ The width of the diverted TR8 bridleway will be increased to 3m and it is proposed it will run alongside a hedgerow planted east of the fence to allow for screening of the car park and the Airport site. 			

Impact	Mitigation proposed	Post mitigation effect	Proposed plan reference	DCO Reference
	<p>Any way marker posts or other PRow infrastructure will be replaced and relocated as appropriate; and</p> <ul style="list-style-type: none"> ▶ TR9 will be extinguished south of the perimeter fence of the Airport so that no PRow falls within the red line boundary of the site. 			
Health and Wellbeing				
Preventative approach to healthcare	<ul style="list-style-type: none"> ● The establishment of a formal Consultative Committee provides an opportunity for Manston Airport to develop a working relationship with local health stakeholders through invitation to participate and discuss health and wellbeing concerns and initiatives. <div style="background-color: #f0f0f0; padding: 10px; margin-top: 10px;"> <ul style="list-style-type: none"> ● Financial contribution to the formal Community Trust Fund (in addition to any noise penalties collected), supporting facilities and activities that actively improve local health and wellbeing, which could for example include: <ul style="list-style-type: none"> ▶ Community social facilities (e.g. halls, societies or events) to benefit community cohesion and reduce loneliness and social isolation; ▶ Amateur sports clubs and facilities, encouraging physical activity. This should seek to support sports for all demographics including small children and older people; ▶ Third-sector organisations working to reduce loneliness, e.g. via visits and events for the older population; ▶ Third-sector organisations working to provide mental health care in the community; </div>	No significant effects		

Impact	Mitigation proposed	Post mitigation effect	Proposed plan reference	DCO Reference
	<ul style="list-style-type: none"> ▶ Third-sector organisations assisting older people to live independently in the community; ▶ Third-sector organisations providing educational and outreach events for young people; ▶ Community wildlife and nature groups, e.g. those working on recreational projects such as nature trails; or ▶ Other initiatives responding to local health and wellbeing needs, in consultation with health stakeholders. 			
Good quality employment generation	<ul style="list-style-type: none"> ● Recruitment measures tailored to those in local communities who are long-term unemployed, young people looking for work, or those with limited skills/qualifications, if possible in partnership with an educational provider. ● Commitment to being a good quality employer and providing workplace wellbeing initiatives (physical working environment and workplace health promotion). 	Moderate beneficial		
Improving active travel	<ul style="list-style-type: none"> ● Setting more ambitious targets for active travel among direct workforce, considering favourable location within cycling and potentially walking distance of surrounding communities. Provision or funding of new traffic-free cycle and pedestrian links to the redeveloped airport accesses, which would have potential also to link up existing rights of way and off-road cycle routes, improving the network for local residents as well as commuting employees. 	Minor beneficial	Operation Environmental Management Plan	Requirement 7 (OEMP)

Impact	Mitigation proposed	Post mitigation effect	Proposed plan reference	DCO Reference
Improvements to surface access and transport	<ul style="list-style-type: none"> Highways and junction improvements for 'nil detriment' outcome for road users; speed reduction and road safety improvements on Spitfire Way; provision of pedestrian crossings. Travel Plan with measures including additional bus service provision, on-site cycle parking and changing facilities, employee car sharing scheme. Assess demand and capacity on public transport routes affected; if capacity constraints forecast, seek to mitigate effects on residents in consultation with public transport operators. 	No significant effects	Travel Plan Operation Environmental Management Plan	Requirement 7 (OEMP)
Emissions to air from operation of the proposed development adversely affecting respiratory and cardiovascular health	<ul style="list-style-type: none"> Operational HGV routing to minimise congestion; avoid idling for all vehicles; use of FEGP and electric vehicles or highest emission standard diesel vehicles; airport layout and arrival/departure scheduling to minimise idling, taxiing and holding. 	Minor adverse	Operation Environmental Management Plan	Requirement 7 (OEMP)
Operational noise adversely affecting wellbeing and quality of life	<ul style="list-style-type: none"> Noise quota count (QC): no night flights with QC 8 or 16; maximum annual night flight QC of 3,028. Noise insulation grant scheme for freehold owners of residential properties in 63 dB LAeq 16hr day time contour or 55 dB LAeq 8hr night-time contour and for other noise-sensitive buildings in the 60 dB LAeq 16hr day time contour. Relocation assistance grant for freehold owners of residential properties in 69 dB LAeq 16hr day time contour if choosing to move to a quieter location. Limitations on engine testing and reverse thrust; preferential take-offs from Runway 28 and landings on Runway 10; aircraft noise monitoring, track monitoring and departure noise limits with fines for exceedances/deviations. 	Residential receptors: moderate adverse Schools: minor adverse	Noise Mitigation Plan	Requirement 9 (Noise mitigation)

Impact	Mitigation proposed	Post mitigation effect	Proposed plan reference	DCO Reference
	<ul style="list-style-type: none"> Consultative Committee and Community Trust Fund to spend any penalties collected. 			
Health or wellbeing issues due to property flooding	<ul style="list-style-type: none"> Drainage Strategy with runoff management and attenuation to avoid any increase in discharge rate and off-site flood risk 	No significant effects	Drainage Strategy	Requirement 13 (Surface and foul water drainage)
Climate Change				
Resilience of the Proposed Development to climate change	<ul style="list-style-type: none"> The Applicant has committed to developing a Climate Change Adaptation Strategy following DCO approval. In-line with Institute of Environmental Management and Assessment (IEMA) guidance and the upcoming ISO 14090, 'Framework for adaptation to climate change'²², the Climate Change Adaptation Strategy will put in place a series of measurable design and operational mitigations for ensuring the functionality of the airport is not reduced by climate change over time. 	Not significant	Climate Change Adaptation Strategy	Requirement 4 (Detailed design)
Potential GHG emissions	<ul style="list-style-type: none"> Agree and enforce a strict routing plan for incoming and outgoing HGVs, avoiding, where possible, peak traffic flow hours in order to reduce congestion and queuing. Agree and enforce delivery and dispatch schedules for HGVs that avoid, where possible, causing congestion on the local road network and excessive emissions to atmosphere. Also, enforce a "no unnecessary idling" policy for all vehicles on the development site. 	Not significant	Operation Environmental Management Plan	Requirement 7 (OEMP)

²² International Organisation for Standardization (ISO). ISO/WD 14090 Greenhouse Gases – Framework for adaptation to climate change. Currently in preparatory phase.

Impact	Mitigation proposed	Post mitigation effect	Proposed plan reference	DCO Reference
	<ul style="list-style-type: none"> ● Planning aircraft arrival and departure scheduling to avoid, where possible, over-long idling, taxiing and hold times. ● Airfield layout design to minimise times taxiing and holding. ● Use of FEGP to minimise engine/auxiliary power unit use. ● Bans on older, less efficient aircraft. ● Largely electric GSE fleet. ● Diesel GSE largely bought new and meeting current emissions standards. ● Planning aircraft arrival and departure scheduling to avoid, where possible, over-long operation of liquid fossil-fuelled GSE. 			
The effects of GHG emissions from the Proposed Development on the climate	<ul style="list-style-type: none"> ● The development of a Carbon Minimisation Action Plan, including incorporation of mitigations such as those listed in Table 16.15 in Chapter 16: Climate Change of the ES following DCO approval has therefore been committed to. ● An adequate target for reduction of the 78.6 ktCO₂ per annum from non-aviation sources and the 808.7 ktCO₂ per annum from all sources will be set within the Carbon Minimisation Action Plan by the applicant and signed off by the Secretary of State. ● The mitigation suggested in Table 16.15 in Chapter 16: Climate Change of the ES are indicative of what could be included in the Carbon Minimisation Action Plan and are not an exhaustive list. 	Not significant	Carbon Minimisation Action Plan	Requirement 7 (OEMP)

Impact	Mitigation proposed	Post mitigation effect	Proposed plan reference	DCO Reference
Major Accidents and Disasters				
Large release of fuel, chemical or oil leading to major accident damage	<ul style="list-style-type: none"> ● An Outline Drainage Strategy has been developed (see Chapter 3: Description of the Proposed Development of the ES) to capture, treat and discharge water in a controlled manner. ● The general mitigations associated with the groundwater and surface water are covered in Chapter 8: Freshwater Environment of the ES. Many of these are of benefit to major accident and disaster mitigation. Additional measures specific to the major accidents and disasters topic are outlined below: <ul style="list-style-type: none"> ▶ De-icer selected for use on the runways will not be classed as 'dangerous to the environment'. ▶ Post DCO engineering design industry good practice, including risk management, adoption of ALARP risk reduction and inherent safe design principles. ▶ The potential for major accidents and disasters will be included in the Emergency Plan and safety and environmental management systems. ▶ The design will minimise the storage and use of materials which are classed as 'dangerous to the environment'. The design will ensure these are stored in accordance with good practice as a minimum and that the layout of the airport and fuel farm is in line with relevant design standards and codes. ▶ Operational flights and vehicle movements will be in accordance with European Aviation Safety Agency (EASA) licensing and industry good practice (including relevant EASA and Civil Aviation Authority (CAA) guidelines) to minimise the potential for 	Not significant	<p>Drainage Strategy</p> <p>Operational Emergency Plan</p> <p>Operation Environmental Management Plan</p> <p>Spillage Environmental Response Plan / Environmental Spillage Plan</p>	<p>Requirement 4 (Detailed design)</p> <p>Requirement 5 (Detailed design of fuel depot)</p> <p>Requirement 7 (OEMP)</p> <p>Requirement 13 (Surface and foul water drainage)</p> <p>Requirement 14 (Traffic management)</p>

Impact	Mitigation proposed	Post mitigation effect	Proposed plan reference	DCO Reference
	<p>collision or aircraft incident and subsequent release of fuel/chemical to the environment.</p> <ul style="list-style-type: none"> ▶ Aerodrome security measures and controls will be in place, in line with EASA licensing requirements, including cyber security. ▶ Oils, chemicals and fuels will be stored in designated locations with specific measures to prevent leakage and release of their contents. All fuel storage of tanks will be appropriately designed to at least current standards or higher. ▶ Traffic and roadway management, with collision barriers in selected locations. ▶ UK government airport controls for imports and passengers. ▶ No plans for import of livestock. ▶ Airport access will be secure and controlled. <ul style="list-style-type: none"> ● Protection against adverse weather and natural phenomenon effects will include: <ul style="list-style-type: none"> ▶ Mitigations relating to drainage and containment as outlined in Chapter 8: Freshwater Environment. Many are applicable to protect against extreme weather events; ▶ Tank and equipment activities will allow for adverse weather events and natural phenomenon in their design basis; and ● Procedures will be in place to restrict and make safe operations in adverse weather and relevant natural phenomenon as part of the operational safety 			

Impact	Mitigation proposed	Post mitigation effect	Proposed plan reference	DCO Reference
	management system. These events will also be allowed for in the Emergency Plan.			
Structural equipment or civils collapse at the airport causing release of harmful substance	<ul style="list-style-type: none"> Post DCO engineering design industry good practise, including risk management, adoption of ALARP risk reduction and inherent safe design principles. The potential for major accidents and disasters will be included in the Operational Emergency Plan and safety and environmental management systems. Traffic and roadway management, with collision barriers in selected locations. Operational flights and vehicle movements will be in accordance with EASA licensing and industry good practice (including relevant EASA and CAA guidelines) to minimise the potential for collision or aircraft incident and subsequent release of fuel/chemical to the environment. Aerodrome security measures and controls will be in place, in line with EASA licensing requirements, including cyber security. Buildings to be constructed to building and fire safety regulatory requirements and current good practice. The potential for major accidents and disasters will be included in the Emergency Plan and safety or environmental management systems. Historical site risk from previous activities (e.g. UXO and ground instability from tunnelling) minimised prior to construction: Site survey investigations and monitoring programmes will be undertaken to identify any that may be present. If any are found a plan will be developed for their controlled removal. 	Not significant	Operational Emergency Plan Operation Environmental Management Plan Spillage Environmental Response Plan / Environmental Spillage Plan UXO Threat and Risk Assessment	Requirement 4 (Detailed design) Requirement 7 (OEMP) Requirement 11 (Contaminated land and groundwater) Requirement 13 (Surface and foul water drainage) Requirement 14 (Traffic management)

Impact	Mitigation proposed	Post mitigation effect	Proposed plan reference	DCO Reference
	<ul style="list-style-type: none"> Secure site with restricted access. 			
Large leakage from fuel storage tanks, tankers or contaminated firewater into groundwater/SPZ	<ul style="list-style-type: none"> The general mitigations associated with the groundwater and surface water are covered in Chapter 8: Freshwater Environment of the ES. Several of these relate to tank farm design and its drainage. The information provided below highlights aspects of specific relevance to major accidents and disasters which are not addressed in other topics. All fuel storage tanks on the fuel farm will be appropriately designed to at least current standards or higher (e.g. double skinned, bunded etc.), including HSG 176 (Storage of flammable liquids in tanks), EI 1540 (Design, construction, commissioning, maintenance and testing of aviation fuelling facilities), CIRIA C736 (Containment Systems for the Prevention of Pollution), EI 2015 Guidelines on Environmental Management for Facilities Storing Bulk Quantities of Petroleum, Petroleum Products and Other Fuels and HSE PSLG Buncefield recommendations. Post DCO Engineering design industry good practice, including risk management, adoption ALARP risk reduction and inherent safe design principles. The potential for major accidents and disasters will be included in the Emergency Plan and safety and environmental management systems. Tank and associated equipment will include leak detection, process interlocks and mechanical devices. Traffic and roadway management. Collision protection will be provided in key areas and traffic control will exist on site. 	Not significant	<p>Operational Emergency Plan</p> <p>Operation Environmental Management Plan</p> <p>Spillage Environmental Response Plan / Environmental Spillage Plan</p>	<p>Requirement 4 (Detailed design)</p> <p>Requirement 5 (Detailed design of fuel depot)</p> <p>Requirement 7 (OEMP)</p> <p>Requirement 11 (Contaminated land and groundwater)</p> <p>Requirement 13 (Surface and foul water drainage)</p> <p>Requirement 14 (Traffic management)</p>

Impact	Mitigation proposed	Post mitigation effect	Proposed plan reference	DCO Reference
	<ul style="list-style-type: none"> ● Site access will be secure and controlled. Aerodrome security measures and controls will be in place, in line with EASA licensing requirements, including cyber security. ● Firefighting foam selected for use on the tank farm will not be classed as 'dangerous to the environment'. ● Climate change will be allowed for in the design basis. ● The design will minimise the storage and use of materials which are dangerous to the environment. The design will ensure that where these are stored, they are stored in accordance with industry good practice (e.g. relevant guidance referred to in Error! Reference source not found. and elsewhere in Chapter 8: Freshwater Environment of the ES). ● Operational flights and vehicle movements will be in accordance with EASA licensing and industry good practice (including relevant EASA and CAA guidelines) to minimise the potential for collision or aircraft incident leading to loss of material harmful to the environment (e.g. aircraft fuel tank or fuel farm tank failure). This will include security and cyber security risk measures. ● Tankers within the local public road network are considered in Chapter 14: Traffic and Transport of the ES. The nature of vehicles and tankers is similar to those already experienced in the local network. Collisions leading to release of fuel would be dealt with by means of the normal police response. Tanker Driver would be ADR qualified (i.e. qualified to drive dangerous goods under the European Agreement concerning the International Carriage of Dangerous Goods by Road) drivers and familiar with the transport of hazardous material. 			

Impact	Mitigation proposed	Post mitigation effect	Proposed plan reference	DCO Reference
	<ul style="list-style-type: none"> ● Failure during adverse weather will include: <ul style="list-style-type: none"> ▶ Mitigations relating to drainage and containment as outlined in Chapter 8: Freshwater Environment of the ES and above under groundwater. Many are applicable to protect against extreme weather events; ▶ Tank and equipment activities will allow for adverse weather events in their design basis; and ▶ Procedures will be in place to restrict and make safe operations in adverse weather as part of the operational safety management system. These events will also be allowed for in the Emergency Plan. 			
Large release of hazardous substances into Pegwell Bay and associated designated sites	<ul style="list-style-type: none"> ● The design of the tanks, equipment, layout, containment and drainage systems (throughout the airport and tank farm) and their operation will be as described above under 'groundwater' and are therefore not repeated here. ● Mitigation measures relating to the Pegwell Bay outfall and the associated pipeline are addressed in Chapter 8: Freshwater Environment. ● Post DCO Engineering design industry good practice, including risk management, adoption of ALARP risk reduction and inherent safe design principles. ● The potential for major accidents and disasters will be included in the Emergency Plan and safety/environmental management systems. ● Tankers while on the local public road network are considered in Chapter 14: Traffic and Transport. The nature of vehicles and tankers that will be required for the airport is similar to those already in use on the local network. Collisions leading to release of fuel cargo 	Not significant	<p>Operational Emergency Plan</p> <p>Operation Environmental Management Plan</p> <p>Drainage Strategy</p> <p>Spillage Environmental Response Plan / Environmental Spillage Plan</p>	<p>Requirement 4 (Detailed design)</p> <p>Requirement 5 (Detailed design of fuel depot)</p> <p>Requirement 7 (OEMP)</p> <p>Requirement 11 (Contaminated land and groundwater)</p> <p>Requirement 12 (Protected species)</p> <p>Requirement 13 (Surface and foul water drainage)</p>

Impact	Mitigation proposed	Post mitigation effect	Proposed plan reference	DCO Reference
	would be dealt with by means of the normal police response. Tanker Driver would be ADR drivers, familiar with the transport of hazardous material and operating in line with the Carriage of Dangerous Goods and Use of Transportable Pressure Equipment Regulations 2009.			
Major accident or disaster damage to designated heritage sites	<ul style="list-style-type: none"> The Operational Emergency Plan will allow for protection of heritage sites where required. Operational flights will be in accordance with EASA licensing and industry good practice (including relevant EASA and CAA guidelines) to minimise the potential for collision or aircraft incident. 	Not significant	Operational Emergency Plan Operation Environmental Management Plan	Requirement 7 (OEMP)
Harm to people (major injuries or loss of life)	<ul style="list-style-type: none"> The design of the tanks, equipment, containment and drainage systems, and their operation will be as described above under 'groundwater' (above, in this table) and are therefore not repeated here. The design will include risk assessment and be developed in line with process safety standards, and the requirements of the Management of Health and Safety at Work Regulations. This will include site layout and design to reduce risk to public and workers to ALARP. The potential for major accidents and disasters will be included in the Operational Emergency Plan and operational safety/environmental management systems. Ignition sources at the site will be controlled in areas where flammable atmospheres may be present in the event of a release in line with DSEAR regulations. 	Not significant	Operational Emergency Plan Operational Environmental Management Plan UXO Threat and Risk Assessment	Requirement 4 (Detailed design) Requirement 5 (Detailed design of fuel depot) Requirement 7 (OEMP)

Impact	Mitigation proposed	Post mitigation effect	Proposed plan reference	DCO Reference
	<ul style="list-style-type: none"> ● Layout and equipment design will consider measures to minimise the potential for vapour cloud explosions (e.g. to minimise congestion and confinement). ● The design will minimise the storage of materials which are flammable or have the potential to lead to serious damage to populations. The design will ensure that where storage of such materials is necessary, they are stored and managed in accordance with good practice (e.g. relevant guidance referred to in Error! Reference source not found. and elsewhere in Chapter 8: Freshwater Environment of the ES) as a minimum and that the layout of the airport and fuel farm allows for sufficient segregation from populated areas to control risk in accordance with HSE requirements. ● Operational flights and vehicle movements will be in accordance with EASA licensing and relevant EASA/CAA guidelines to minimise the potential for collision or aircraft incident leading to injury or damage to property. ● Aerodrome security measures and controls will be in place, in line with EASA licensing requirements, and comply with the Aviation Security Regulations 2010 and Airport Security in Aviation Development, including cyber security. ● EASA licensing and industry good practice (including relevant EASA and CAA guidelines) for airside access, security and operational controls. ● Collision protection (e.g. barriers such as HMV bollards) will be provided in key areas and traffic control will be implemented at the airport to minimise potential for collision with equipment containing flammable or harmful materials, or impact with people. 			

Impact	Mitigation proposed	Post mitigation effect	Proposed plan reference	DCO Reference
	<ul style="list-style-type: none"> ● Historical site risk from previous activities (e.g. UXO and ground instability from tunnelling) minimised prior to construction: Site survey investigations and monitoring programmes will be undertaken to identify any that may be present. If any are found a plan will be developed for their controlled removal. ● Buildings to be constructed to building and fire safety regulatory requirements and current good practice. The potential for major accidents and disasters will be included in the Emergency Plan and safety/environmental management systems. ● UK government airport controls for imports and passengers. ● Tankers and vehicles offsite within the local public network are considered in Chapter 14: Traffic and Transport of the ES. The nature of vehicles and tankers is similar to those already experienced in the local network. Collisions leading to injury would be dealt with by means of the normal police response. Tanker Driver would be ADR drivers and familiar with the transport of hazardous material. 			

Appendix A

Management Plans

- 3.1.1 The management plans which will be in place during the construction and operation of the Proposed Development, to enforce the mitigation measures outlined within the Register of Environmental Actions and Commitments (REAC), are outlined in **Table A1** and **Table A2**.
- 3.1.2 It should be noted that not all plans form part of the Development Consent Order (DCO) submission, many are in draft form and will be finalised post DCO consent by the responsible party.
- 3.1.3 Management plans within **Table A1** will accompany the Construction Environmental Management Plan (CEMP) and be in place during construction of the Proposed Development.

Table A1 Management Plans for the Construction of the Proposed Development

Plan/Strategy	Description	Responsible Party
Archaeological Evaluation Written Scheme of Investigation	Details the strategy and mitigation measures to be used during archaeological works on site.	The Applicant / contractor (as agreed)
Carbon Minimisation Action Plan	Identifies actions for minimising the carbon footprint of the Proposed Development.	The Applicant / Operator (as agreed)
Code of Construction Practice	Sets out the standards and procedures to which the Applicant and contractors must adhere to when undertaking construction of the Proposed Development.	The Applicant / contractor (as agreed)
Communications Plan	A plan which formally defines who should be given specific information, when that information should be delivered and what communication channels will be used to deliver that information.	The Applicant / contractor (as agreed)
Construction Emergency Plan	Details the incident alerting procedures and the initial action responsibilities for airport staff.	The Applicant / contractor (as agreed)
Construction Risk Assessment	A systematic process of evaluating the potential risks that may be involved in a projected activity or undertaking during the construction phase.	The Applicant / contractor (as agreed)
Construction Safety Management Plan	Details relevant safety, health and environmental information relating to all land within the construction site.	The Applicant / contractor (as agreed)
Construction Site Drainage Plan	Proposed method for containment of water, typically produced from rainfall on site.	The Applicant / contractor (as agreed)

Plan/Strategy	Description	Responsible Party
Construction Traffic Management Plan	Site specific plan that covers the design, implementation, maintenance and removal of any temporary traffic management measures on the surrounding road network while work or activity is carried out on a construction site.	The Applicant / contractor (as agreed)
Construction Travel Plan	A long-term management strategy for integrating proposals for sustainable travel into the planning process.	The Applicant / contractor (as agreed)
Dust Management Plan	Outlines appropriate management techniques that will reduce the potential for any dust-related adverse effect to public health or the environment.	The Applicant / contractor (as agreed)
Environmental Spillage Plan	Details the measures for responding to spillages, including controlling spills and clean-up.	The Applicant / contractor (as agreed)
Habitat Management Plan	A plan detailing how habitats will be managed on site.	The Applicant / contractor (as agreed)
Landscape Masterplan	Presents the overview/vision for the site landscape design, which, by establishing functional relationships between all of the parts of the site, then guides the detail design and interaction of elements.	The Applicant / contractor (as agreed)
Land Quality Written Scheme of Investigation	Details the strategy and mitigation measures to be used during land quality investigation works on site.	The Applicant / contractor (as agreed)
Lighting Strategy	Recommends lighting to be incorporated as to minimise the impact to the surrounding environment.	The Applicant / contractor (as agreed)
Mitigation and Habitat Creation Plan	Details of habitat creation measures for all species that could potentially be found on site.	The Applicant / contractor (as agreed)
Noise and Vibration Management Plan	Defines the measures to control and limit noise emissions and vibration levels.	The Applicant / contractor (as agreed)
Outline Drainage Strategy	A report into how surface water, usually caused by rain, affects the Site and the surrounding area.	The Applicant / contractor (as agreed)
Pollution Incident Control Plan	For use by all company personnel for the identification, notification, containment and clean-up of all spillages, both inside and externally of a building or on the airfield.	The Applicant / contractor (as agreed)
Public Rights of Way (PRoW) Management Plan	Addresses the interactions between the PRoWs and the Proposed Development.	The Applicant / contractor (as agreed)
Remediation Strategy	Report which details the procedures for remediating a site (i.e.) the process of removing polluted or contaminated soil, sediment, surface water, or groundwater, to reduce the impact on people or the environment.	The Applicant / contractor (as agreed)

Plan/Strategy	Description	Responsible Party
Site Waste Management Plan	A strategy and action plan for the management of waste which is likely to arise during the construction of the Proposed Development.	The Applicant / contractor (as agreed)
Surface Water Monitoring Strategy / Detailed Plan	A report into how surface water, usually caused by rain, affects the Site and the surrounding area.	The Applicant / contractor (as agreed)
Tree Survey and Protection Plans	Management of trees in the habitat on the Site.	The Applicant / contractor (as agreed)
UXO Threat and Risk Assessment	Details on managing UXO risks prior to the re-development of the Site to determine any mitigation required to address this risk.	The Applicant / contractor (as agreed)

3.1.4 Management plans within **Table A2** will accompany the Operational Environmental Management Plan (OEMP) and be in place during the operation of the Proposed Development.

Table A2 Management Plans for the Operation of the Proposed Development

Plan/Strategy	Description	Responsible Party
Airport Management Strategy	Overarching strategy for management of the Proposed Development during its operation.	The Applicant / Operator (as agreed)
Car Park Management Strategy	Summarises the car parking requirements at the Proposed Development and the proposals.	The Applicant / Operator (as agreed)
Carbon Minimisation Action Plan	Identifies actions for minimising the carbon footprint of the Proposed Development.	The Applicant / Operator (as agreed)
Climate Change Adaptation Strategy	Puts in place a series of measurable design and operational mitigations for ensuring the functionality of the Proposed Development is not reduced by climate change over time.	The Applicant / Operator (as agreed)
Communications Plan	A plan which formally defines who should be given specific information, when that information should be delivered and what communication channels will be used to deliver that information.	The Applicant / Operator (as agreed)
Complaints Investigation Procedure	The purpose of the procedure is to outline the requirements for dealing with complaints, ensuring that formal complaints are investigated, addressed and closed accordingly.	The Applicant / Operator (as agreed)
Drainage Strategy	A report into how surface water, usually caused by rain, affects the Site and the surrounding area.	The Applicant / Operator (as agreed)
Emergency Response and Post-Crash Management Plan	Consolidated reference and action document for use of personnel in the event of a major incident or emergency.	The Applicant / Operator (as agreed)
Environmental Spillage Plan	Details the measures for responding to spillages, including controlling spills and clean-up.	The Applicant / Operator (as agreed)
Habitat Management Plan	A plan detailing how habitats will be managed on site.	The Applicant / Operator (as agreed)
Landscape Masterplan	Presents the overview/vision for the site landscape design, which, by establishing functional relationships between all of the parts of the site, then guides the detail design and interaction of elements.	The Applicant / Operator (as agreed)

Plan/Strategy	Description	Responsible Party
Lighting Strategy	Recommends lighting to be incorporated as to minimise the impact to the surrounding environment.	The Applicant / Operator (as agreed)
Long Grass Policy	Management of the aerodrome grassland to minimise bird population and reduce the risks of bird strike.	The Applicant / Operator (as agreed)
Method Statement for Environmental Monitoring (Bats / Reptiles / Noise Control)	Outlines the operational environmental monitoring programme.	The Applicant / Operator (as agreed)
Mitigation and Habitat Creation Plan	Details of habitat creation measures for all species that could potentially be found on site.	The Applicant / Operator (as agreed)
Noise Mitigation Plan	A plan detailing the measures for minimising the effects of noise.	The Applicant / Operator (as agreed)
Operational Emergency Plan	Details the incident alerting procedures and the initial action responsibilities for airport staff.	The Applicant / Operator (as agreed)
Operational Traffic Management Plan	Site specific plan that covers the routing and scheduling agreement for incoming and outgoing Heavy Goods Vehicles (HGVs).	The Applicant / Operator (as agreed)
Pollution Incident Control Plan	For use by all company personnel for the identification, notification, containment and clean-up of all spillages, both inside and externally of a building or on the airfield.	The Applicant / Operator (as agreed)
Public Rights of Way (PRoW) Management Plan	Addresses the interactions between the PRoWs and the Proposed Development.	The Applicant / Operator (as agreed)
Safety Health and Environment Plan	Details relevant safety, health and environmental information relating to all land within the construction site.	The Applicant / Operator (as agreed)
Site Waste Management Plan	A strategy and action plan for the management of waste which is likely to arise during the operation of the Proposed Development.	The Applicant / Operator (as agreed)
Surface Access Strategy / Airport Surface Access Strategy	This sets out how the airport will improve and encourage all the different ways that passengers, staff and goods get to and from the Proposed Development and beyond.	The Applicant / Operator (as agreed)
Surface Water Monitoring	A report into how surface water, usually caused by rain, affects the Site and the surrounding area.	The Applicant / Operator (as agreed)

Plan/Strategy	Description	Responsible Party
Strategy / Detailed Plan		
Training Plan	Outlines details concerning the formal training that will be undertaken by all those on site. It will outline the objectives, needs and strategy.	The Applicant / Operator (as agreed)
Travel Plan	A long-term management strategy for integrating proposals for sustainable travel into the planning process.	The Applicant / Operator (as agreed)
Tree Survey and Protection Plans	Management of trees in the habitat on the Site.	The Applicant / Operator (as agreed)
Wildlife Hazard Management Plan	Procedure to assess and manage the wildlife hazards on and in the vicinity of the aerodrome in order to reduce the risks of bird strike.	The Applicant / Operator (as agreed)