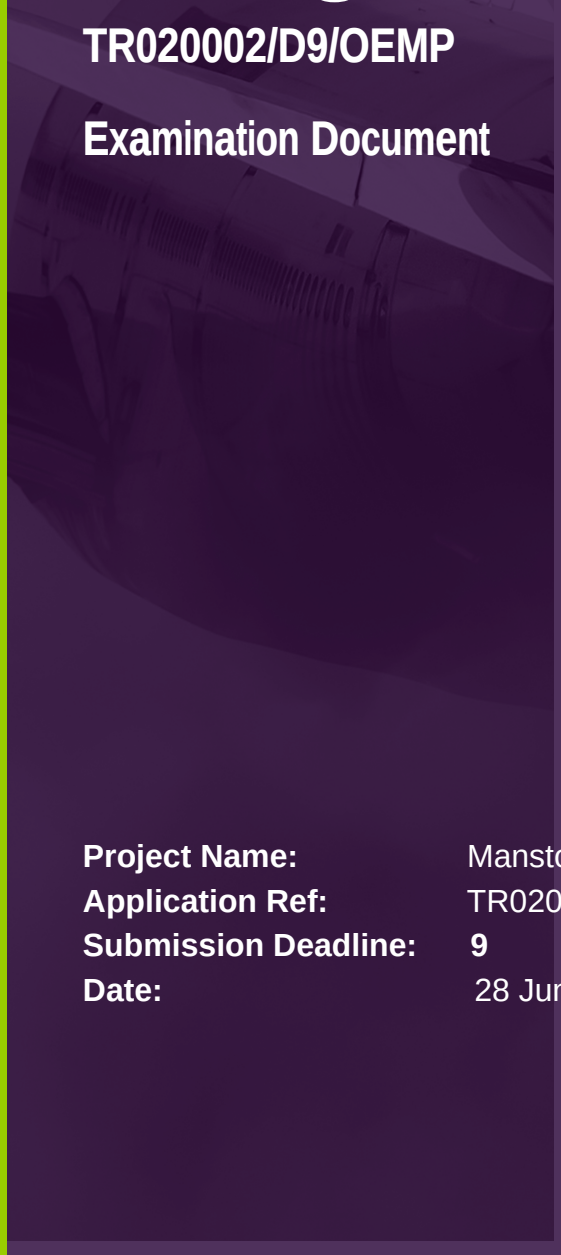
RiverOak Strategic Partners

Operational Environment Management Plan

TR020002/D9/OEMP

Examination Document



Project Name:	Manston Airport Development Consent Order
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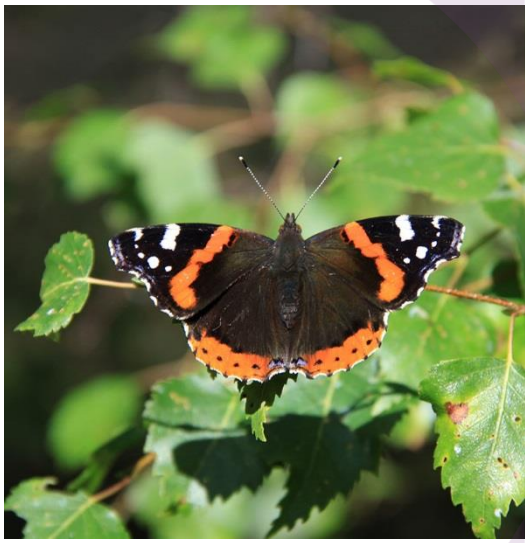
RiverOak Strategic Partners

Manston Airport Development Consent Order

Draft Operational Environmental Management Plan (OEMP)



Wood Environment & Infrastructure Solutions UK Limited – June 2019

Report for

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Document revisions

No.	Details	Date
1	First Draft	June 2019

Contents

1. Introduction

1.1 Scheme Overview

1.1.1 The Proposed Development involves the re-opening of Manston Airport into a dedicated air freight facility, which also offers passenger, executive travel and aircraft maintenance and recycling services. The facilities for air freight and cargo operations will be able to handle in excess of 10,000 air transport movements (ATMs) of cargo aircraft per year. The Airport and its facilities will be fully compliant with the standards of the European Aviation Safety Agency (EASA), and other relevant licensing organisations.

1.1.2 Once operational, it is anticipated that key activities at the Airport are likely to require environmental management and monitoring include:

- Waste generation from a variety of sources such as, staff and visitor welfare facilities and kitchen area;
- Any activities requiring the control of discharges to water, air, land or soil;
- Energy consumption in welfare and office facilities, including lighting, hot water and electrical equipment;
- Aviation fuelling systems;
- Noise producing activities such as, aircraft and Heavy Goods Vehicle (HGV) movements;
- Vehicle movements associated with distribution of goods and visitor and staff arrivals / departures;
- Aircraft emissions; and
- Site Management with particular regard to habitats and biodiversity.

1.2 Purpose

1.2.1 This draft Operational Environmental Management Plan (OEMP) provides a framework for project specific environmental management and will be implemented by RiverOak during the operational phase of the Proposed Development. As indicated by Requirement 7 of the DCO, the 'final' version of this document will need to be signed off by the Secretary of State (SoS) in consultation with the relevant Statutory bodies and Thanet District Council (TDC). Even after sign-off, it should be treated as a 'live' document which should be reviewed if activities or conditions change and updated to reflect best practice as well as any new or planned operational management activities being undertaken. This may include:

- Changes to legislation;
- Result of external audits and inspections; and
- Learning points from environmental near misses and incidents.

1.2.2 The OEMP is designed to assist in the delivery of the operational environmental management principles described in the Environmental Statement (ES) (**Chapters 6-17**) and supporting documentation, to avoid, reduce or compensate any adverse effects resulting from the operation of Manston Airport. Environmental management measures associated with the construction of the

Proposed Development shall be delivered via the implementation of a separate Construction Environmental Management Plan (CEMP).

1.2.3 The aim of the OEMP is to set out the roles and responsibilities with regard to compliance with legislation and best practice guidance and aims to ensure that any impacts on the environment and local communities can be managed.

1.2.4 In relation to Manston Airport, these are likely to include noise and vibration, air quality, water and drainage, ecology, traffic management and emergency response procedures.

1.2.5 The OEMP will be reviewed annually on the above basis and issued to the relevant authority to ensure ongoing compliance throughout the life of the development.

1.3 Objectives

1.3.1 The objectives of the OEMP are as follows:

- To provide a mechanism for ensuring the delivery of environmental measures (including those which will be secured through specific requirements of the DCO), to avoid, reduce or compensate for environmental effects identified in the ES;
- To ensure compliance with legislation and identify where it will be necessary to obtain authorisation from relevant statutory bodies;
- To provide a framework for compliance auditing and inspection to ensure the agreed environmental aims are being met; and
- To ensure a prompt response to any non-compliance with legislative and DCO requirements, including reporting, remediation and any additional mitigation measures required to prevent recurrence.

1.4 Additional Management Plans

1.4.1 Alongside this OEMP, a number of related management plans and strategies (**Table 1.1**) will be prepared to manage environmental impacts (see **Table 4.3**).

Table 1.1 Related Management Plans

Plan/Strategy	Description	Responsible Party	Enforcement Body
Airport Management Strategy	Overarching strategy for management of the Airport during its operation.	RiverOak / Operator (as agreed)	SoS in consultation with TDC
Car Park Management Strategy	Summarises the car parking requirements at Airport and the proposals.	RiverOak / Operator (as agreed)	SoS in consultation with Kent County Council (KCC)
Carbon Minimisation Action Plan (CMAP)	Identifies actions for minimising the carbon footprint of the Airport.	RiverOak / Operator (as agreed)	SoS in consultation with TDC
Climate Change Adaptation Strategy (CCAS)	Puts 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.	RiverOak / Operator (as agreed)	SoS in consultation with TDC

Plan/Strategy	Description	Responsible Party	Enforcement Body
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.	RiverOak / Operator (as agreed)	SoS in consultation with TDC
Complaints Investigation Procedure	The purpose of the procedure if to outline the requirements for dealing with complaints, ensuring that formal complaints are investigated, addressed and closed accordingly.	RiverOak / Operator (as agreed)	SoS in consultation with TDC
Drainage Strategy	A report into how surface water, usually caused by rain, affects the site and the surrounding area.	RiverOak / Operator (as agreed)	SoS in consultation with the Environment Agency (EA) and Southern Water (SW)
Dust Management Plan (DMP)	Outlines appropriate management techniques that will reduce the potential for any dust-related adverse effect to public health or the environment.	RiverOak / Operator (as agreed)	SoS in consultation with TDC
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.	RiverOak / Operator (as agreed)	SoS in consultation with CAA, the EA and TDC
Environmental Spillage Plan	Details the measures for responding to spillages at the Airport, including controlling spills and clean-up.	RiverOak / operator (as agreed)	SoS in consultation with Environment Agency and TDC
Habitat Management Plan (HMP)	A plan detailing how habitats will be managed on site.	RiverOak / Operator (as agreed)	SoS in consultation with Natural England (NE) and the CAA, TDC and Kent Wildlife Trust
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.	RiverOak / Operator (as agreed)	SoS in consultation with TDC
Lighting Strategy	Recommends lighting to be incorporated as to minimise the impact to the surrounding environment.	RiverOak / Operator (as agreed)	SoS in consultation with TDC
Long Grass Policy	Management of the aerodrome grassland to minimise bird population and reduce the risks of bird strike.	RiverOak / Operator (as agreed)	SoS in consultation with NE with TDC and CAA
Method Statement for Environmental Monitoring (Bats / Reptiles / Noise Control)	Outlines the operational environmental monitoring programme.	RiverOak / Operator (as agreed)	SoS in consultation with NE and TDC
Mitigation and Habitat Creation Plan (MHCP)	Details of habitat creation measures for all species that could potentially be found on site.	RiverOak / Operator (as agreed)	SoS in consultation with NE
Noise Mitigation Plan	A plan detailing the measures for minimising the effects of noise.	RiverOak / Operator (as agreed)	SoS in consultation with TDC
Operational Emergency Plan	Details the incident alerting procedures and the initial action responsibilities for Airport staff.	RiverOak / operator (as agreed)	SoS in consultation with TDC

Plan/Strategy	Description	Responsible Party	Enforcement Body
Pollution Incident Control Plan (PICP)	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.	RiverOak / operator (as agreed)	SoS in consultation with CAA, the EA and TDC
Preliminary Freight Management Strategy	Site specific plan that covers the routing and scheduling agreement for incoming and outgoing HGVs.	RiverOak / operator (as agreed)	SoS in consultation with KCC
Public Rights of Way (PRoW) Management Plan	Addresses the interactions between the PRoWs and the Airport.	RiverOak / operator (as agreed)	SoS in consultation with KCC
Safety Health and Environment (SHE) Plan	Details relevant safety, health and environmental information relating to all land within the construction site.	RiverOak / operator (as agreed)	SoS in consultation with TDC
Site Waste Management Plan (SWMP)	A strategy and action plan for the management of waste which is likely to arise during the operation of the Airport.	RiverOak / operator (as agreed)	SoS in consultation with TDC
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 Airport and beyond.	RiverOak / operator (as agreed)	SoS in consultation with TDC
Surface Water Monitoring Strategy / Detailed Plan	A report into how surface water, usually caused by rain, affects the site and the surrounding area.	RiverOak / operator (as agreed)	SoS in consultation with the EA and SW
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.	RiverOak / operator (as agreed)	SoS in consultation with TDC
Travel Plan	A long-term management strategy for integrating proposals for sustainable travel into the planning process.	RiverOak / operator (as agreed)	SoS in consultation with KCC
Tree Survey and Protection Plans	Management of trees in the habitat on the Airport site.	RiverOak / operator (as agreed)	SoS in consultation with TDC
UXO Threat and Risk Assessment	Details on managing unexploded ordnance (UXO) risks prior to the re-development of the site to determine any mitigation required to address this risk.	RiverOak / operator (as agreed)	SoS in consultation with TDC
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.	RiverOak / operator (as agreed)	SoS in consultation with NE and the CAA, TDC and Kent Wildlife Trust,

2. Regulatory Framework and Planning Conditions

2.1 Legislation and Best Practice

2.1.1 The OEMP is required to encompass environmental controls when required, with due consideration to relevant environmental legislation, relevant policies and technical guidance.

2.1.2 The OEMP provides a framework for which commitments made in the ES or any associated planning conditions can be realised.

2.1.3 Key legislation, policy and guidance and their relevance to Manston Airport, are included within **Table 2.2** below. Note that this is not an exhaustive list and it is expected that the relevant legislation would be adopted according to the requirements of specific management and monitoring areas.

Table 2.2 Legislative Framework

Legislation	Relevance to site
Clean Air Act 93	Framework legislation for air quality.
Climate Change Act 2008	Framework legislation for the reduction of greenhouse gas emissions.
Conservation of Habitats and Species Regulations 2017	Environmental impacts assessed for protected species.
Control of Major Accident Hazards (COMAH) Regulations 2015	Control of pollution incidents and spillages.
Control of Pollution Act 1974	Control of noise and vibration during construction.
Control of Substances Hazardous to Health (COSHH) Regulations 2002 (Amended 2004)	[COSHH Assessments will need to be completed for all known substances stored on site during operation]
Controlled Waste (Regulation of Carriers and Seizure of Vehicles) Regulations 1998	Transportation of waste from Manston Airport. [RiverOak to confirm Waste Carrier Licence details}.
Environmental Damage (Prevention and Remediation) Regulations 2009	Prevention of environmental damage (protected species, habitats, surface water, groundwater or land) during operational activities.
EASA and Civil Aviation Authority (CAA) standards	CAP 772: Wildlife Hazard Management at Aerodromes.
Environment Act 1995	Framework legislation for the protection of the environment.
Environmental Permitting (England and Wales) Regulations 2016	Waste Management for waste recycling contractor. [RiverOak to confirm Waste Carrier Licence details}.
Environmental Protection Act 1990	Framework for duty of care for waste, contaminated land and statutory nuisance.
Environmental Protection (Controls of Injurious Substances) Regulations 1992 (Amedned 2001)	[COSHH Assessments will need to be completed for all known substances stored on site during operation]
Hazardous Waste (England) Regulations 2005 (Amended 2009)	Storage of hazardous waste at Manston Airport.

Legislation	Relevance to site
Health and Safety at Work Act 1974	[COSHH Assessments will need to be completed for all known substances stored on site during operation]; protection of employees from occupational noise.
Infrastructure Planning (EIA) Regulations 2017	Ensuring conditions of DCO are complied with.
List of Wastes (England) Regulations 2005	[RiverOak to confirm waste details}.
Pollution Prevention and Control Regulations 2000	Approved plant and equipment to operate within Manston Airport.
Planning Act 2008	Adhere to the conditions attached to DCO.
Site Waste Management Plans Regulations 2008	[SWMP will need to be completed]
Water Resources Act 1991 (Amended 2009) Part III: Pollution Offences	Control of pollution incidents and spillages.
Water Environment (Water Framework Directive (WFD)) (England and Wales) Regulations 2003	Control of pollution incidents and spillages.
Wildlife and Countryside Act 1981 (Amended 85 and 91)	Protected species may be found at Manston Airport during operation.

3. Roles and Responsibilities

3.1.1 Establishing roles and responsibilities is important to ensure the successful operation of Manston Airport, including the implementation of the OEMP. To ensure that all the environmental commitments are met, it is important to ensure that specific roles are clearly set out and there is an awareness of the environmental commitments that are required to be adhered to. An indicative summary of the roles and the levels of responsibility for environmental management at the Airport is detailed in **Table 2.3.**

3.1.2 RiverOak will update this table prior to commencement of operations when the operational and management structures at the airport have been defined. It should be noted that it is not necessarily envisaged that all roles would need to be fulfilled by separate individuals, for example the Operations or Environmental Manager may also take other roles such as, for example, the Travel Plan Co-ordinator.

Table 3.3 Indicative Roles and Responsibilities

Role	Name and Contact Details	Responsibility
Airport Operations Director	TBC	The Airport Operations Director will have overall responsibility for implementing the OEMP, ensuring environmental effects are minimised as much as possible. This will include ensuring adequate resources are made available so that environmental policy is effectively implemented and managed in accordance with relevant legislation and environmental commitments. The Airport Operations Director will conduct quarterly audits with the Airports Operational Manager to ensure compliance has been met and changing operational requirements are captured within the plan. The OEMP will be made available to all staff.
Airport Operations Manager	TBC	Day to day implementation of the environmental management measures within this OEMP. Responsibility for ensuring that compliance is maintained and ongoing review, including reviewing and monitoring tenanted operations and dealing with complaints.
Airport Environmental Manager	TBC	The Airport Environmental Manager will be responsible for the following: • Management of environmental specialists, where required; • Facilitating environmental training and inductions to the workforce, as required; • Monitoring compliance of operational activities with environmental legislation and licences; • Acting as the focal point for all environmental issues.; • Record and report all environmental activities; • Maintain auditable environmental records and conduct audits, as required; • Acting as the first point of contact for members of the public; and • Maintain a register of queries and complaints from the public and respond and resolve complaints.
Airport Travel Plan Co - Ordinator	TBC	The Airport Travel Plan Co-ordinator will have the following responsibility's; • Overseeing the development and implementation of the Manston Airport Travel Plan during the construction phasing and occupation; • Designing and implementing effective marketing and awareness raising campaigns;

Role	Name and Contact Details	Responsibility
		• Acting as a point of contact for occupants requiring information; • Liaising with different groups relating to the Travel Plan, e.g. KCC, TDC, transport operators, cycle shops, etc.; • Liaising with the site occupants of the Airport and the Northern Grass Area; • Liaising with site users, e.g. neighbourhood groups, cycle groups, etc; • Responsibility for setting up a working group; • Establishing travel plan groups to ensure that the Travel Plan remains supported at a local level; • Co-ordinating the monitoring and review programme including target setting; • Overseeing the monitoring of the Preliminary Freight Management Strategy; and • Directing the site-wide approach to travel planning (as detailed in this Travel Plan) and will report to a Senior Team within the governance structure.
Engineering Manager	TBC	Responsible for the procurement and maintenance of equipment which minimises environmental impacts.
Shift Supervisor	TBC	Implementation of environmental management measures in relation to their area of operation and ensuring compliance of staff they are supervising, reporting and/or correcting any bad practice.
All staff	TBC	Compliance with environmental management measures within this OEMP and reporting and/or correcting any bad practice.

3.2 Staff Training

3.2.1 Operational staff training requirements will be identified by the Airport Director. As operations at Manston Airport progress, additional training requirements may be identified. These requirements shall be recorded and a database held, including training and skill levels.

3.2.2 Copies of certificates, awards and details of training are kept in personnel files.

3.2.3 All employees have a responsibility to ensure environmental impacts are minimised, and all staff will be trained in the use of the relevant environmental measures in this OEMP, as part of both their induction and ongoing training.

3.3 Third Parties

3.3.1 Third parties, including tenanted operations, at the Airport are expected to have similar reporting lines within their operations and will be required to adhere to the measures outlined within this OEMP. They will be governed by general terms and conditions for occupation of airport facilities which will include compliance with legislation and the need for communicating any environmental management issues to the Manston Airport management team.

4. Environmental Management

4.1 Overview

4.1.1 This chapter of the OEMP provides an overview of the environmental measures that will be implemented during the operation of Manston Airport to avoid, reduce or compensate for adverse environmental effects.

4.2 Environmental Objectives and Targets

4.2.1 It is expected that the airport operator will update this table prior to commencement of operations allowing time to consider specific site activities and develop appropriate operational objectives and targets in relation to those specific activities.

4.2.2 Indicative environmental objectives and targets are set out in **Table 4.1**.

Table 4.1 Indicative Environmental Objectives and Targets

Objective	Target	Responsibility
Reduce water consumption	Measure water consumption to make a 10% reduction year on year.	Airport Environmental Manager
Reduce energy consumption	Measure energy consumption to make a 10% reduction year on year.	Airport Environmental Manager
Reduce waste consumption	Seek to recycle 85% of waste by 2025.	Airport Environmental Manager
To actively promote and encourage travel by sustainable means for passengers	Seek to achieve passenger mode share for sustainable modes of 26% by year 20.	Airport Travel Plan Co-Ordinator
To actively promote and encourage travel by sustainable means for staff	Seek to achieve staff mode share for sustainable modes of 13% by year 20.	Airport Travel Plan Co-Ordinator
To improve the provision of sustainable travel options to the airport	To provide an additional bus shuttle service between Ramsgate Railway Station. Provision of pedestrian footways along the B2050 Manston Road and Spitfire Way site frontage as part of the development scheme proposals; Provision of pedestrian crossings at junctions on the B2050 Manston Road and Spitfire Way as part of the development scheme proposals; Upgrading of PRoWs TR8, TR9 and TR10 which links to the new Manston Green development in the east and the western outskirts of Ramsgate	Airport Travel Plan Co-Ordinator
To minimise disruption on the local road network and on local communities	Car park usage to be monitored and reviewed against the mode share targets	Airport Travel Plan Co-Ordinator/Car Park

Objective	Target	Responsibility
	Freight Management Strategy implemented and monitored to avoid peak hour impacts of HGVs and HGVs routing along sensitive roads. Collaboration with KCC to monitor flyparking or inappropriate parking on the road network in the vicinity of the site	Management Company

4.3 Key Performance Indicators

4.3.1 RiverOak to update as necessary when operational KPIs are identified.

4.3.2 Indicative key performance indicators are set out in **Table 4.2**.

Table 4.2 Indicative Environmental Key Performance Indicators (KPIs)

KPI	Specific Data	Measurement Unit	Responsible
Energy consumption by type	Electricity, gas, petrol, diesel	kWh, litres, tonnes	Airport Environmental Manager
Nitrogen Oxides (NO_2) emissions	Total emissions	Tonnes	Airport Environmental Manager
Fine particle matter (PM_{10}) emissions	Total emissions	Tonners	Airport Environmental Manager
Complaints	Total complaints	Number	Airport Environmental Manager
Environmental Incidents	Total number of incidents	Number	Airport Environmental Manager
Waste and percentage recycled	Recycled / non-recycled / Hazardous	Tones	Airport Environmental Manager
Water consumption	Mains	M^3	Airport Environmental Manager
Use of Car Parks	Parking numbers, length of stay, nature of parking required	Vehicle numbers and duration of stay	Travel Plan Co-ordinator
Passenger and Staff Mode Share	Results of a Travel Plan Survey for Passengers and Staff Traffic count surveys	Mode Share of passengers and staff	Travel Plan Co-Ordinator
Shuttle bus provision	Use of shuttle buses by staff and by passengers	Numbers of passengers	Travel Plan Co-ordinator
Traffic generation	Traffic count surveys	Vehicle numbers	Travel Plan Co-ordinator

4.4 Environmental Aspects and Impacts

4.4.1 This is a 'live' document which should be updated by the Airport operator as necessary.

4.4.2 Environmental management measures are set out in **Table 4.3**.

Table 4.3 Aspects and Impacts Register

Issue	Aspect	Impact	Control Measures	Action
Energy	Energy use in welfare facilities, office facilities, (including hot water, lighting, electrical equipment)	CO^2 emissions	Implementation of a Lighting Strategy to include the use of high efficiency low energy LED lamp sources. Use of fixed Electrical Group Power to minimise engine / Auxiliary Power Unit use. Ground support equipment will be largely electrical and wherever possible, low emission ground source equipment will be used, with all ground source equipment meeting emission standards. Control measures to be implemented such as, best practice to be followed by staff, regular maintenance of equipment (e.g. air conditioning systems) and ensuring equipment is placed on energy saving modes when not in use and/or switched off. Implementation of a Carbon Minimisation Action Plan to identify actions for minimising the carbon footprint of activities.	Airport Environmental Manager
Noise	Noise producing activities	Disturbance to the public and nearby neighbours Health	Maintain good relationships and communications with local residents and businesses to manage complaints. Control measures to be implemented such as, good maintenance of vehicles and switching engines off when not in use. No deliveries to the fuel farm during the hours of 23:00 and 07:00. Manage a community complaints investigation programme.	Airport Environmental Manager
	Aircraft generated noise	Disturbance to the public and nearby neighbours Health	Implementation of a Noise Mitigation Plan including: • Annual air transport movements at the Airport; • Use of night-time 'noise-quota'; • Night flight ban between 23:00 and 06:00; • Ban on noisiest aircraft at night; • Noise insulation scheme and proactive actions to inform those eligible for this; • Ongoing consultation with schools; • A purchase and relocation assistance scheme for residential properties; • Annual reporting on matters relating to noise; • A Community Consultative Committee and a Community Trust Fund; • A ban on routine training flights other than for General Aviation; • A ban on open field testing of jet engines at night; • Reverse thrust limitation procedures;	Airport Environmental Manager

Issue	Aspect	Impact	Control Measures	Action
			• Low power / Low drag approach procedures; • Monitoring of noise levels from aircraft and fines for noisy aircraft; • Fines for aircraft that stray from approved flightpaths; and • A noise contour area cap. Implementation of a Noise and Track Keeping System which will track aircraft in flight. Implementation of a Wake Turbulence Policy. Establishment of a Community Consultative Committee.	
Traffic and Transport	Distribution of goods	Disturbance on the local road network CO^2 emissions	Implementation of a Freight Management Strategy including: • Routing and scheduling agreement for incoming and outgoing HGVs; and • Avoiding, where possible, peak traffic hours.	Airport Environmental Manager
	Vehicle use for staff and visitors travelling to and from site	Disturbance on the local road network CO^2 emissions	Implementation of a Travel Plan which sets out initiatives to enable and encourage sustainable travel by public transport, cycling and walking. The Travel Plan will include: • Car parking management; • Bus provision; • Cycle parking; • Footway provision; • Car share scheme; • Incentives to travel sustainable; and • Provision of directions from public transport.	Airport Environmental Manager or Travel Plan Coordinator
Water	Foul water and foul sewage discharges	Contamination of existing land	Ensure suitable connection to foul water system. Lagoons to be monitored. Discharge of treated water and clean water will be to Pegwell Bay rather than ground.	Airport Environmental Manager
	Water discharges	Pollution to nearby waterbodies and biodiversity designations	Ensure drainage systems have been 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 sent to the site treatment facilities (attenuation ponds). Discharge will be via a permit to Pegwell Bay. Appropriate water quality monitoring. All drainage pipework to be surveyed to allow for leaks and failures to be identified and repaired to meet modern standards.	Airport Environmental Manager

Issue	Aspect	Impact	Control Measures	Action
	Storage and fuelling	Risks of spillage and leakage from fuel tanks entering the groundwater environment and run-off into water systems, leading to ground contamination as a potential pollutant.	The drainage system will be designed to capture, treat and discharge water in a controlled manner. Containment with sealed drainage would be applied to bunds and fuel points, preventing accidental entry of contaminants into the sewer / stormwater drainage network. Bowser fleet to be located on areas of hardstanding, parking and an active drainage system to contain spoils and prevent them find a route to ground or a pathway to the Pegwell Bay outfall. Personnel to be trained in the use of spill kits and spill kits will be made available at appropriate locations for potential spillages and interceptors will be located on all site drains. Aviation fuelling systems and de-icing agents will be stored in containers away from sensitive areas. Fuel storage tanks on the fuel farm will be appropriately designed to at least current standards or higher. They will also include leak detection, process interlocks and mechanical devices. The fuel farm will have separated a drainage system. Oil interceptors and anti-pollution control values would be installed to surface water runoff from internal roads. Regular inspections of tanks and operating facilities and tank integrity monitoring to be undertaken.	Airport Environmental Manager
	Handling and storage of hazardous substances	Health hazard to Airport staff.	Personnel to be trained in the use of spill kits and spill kits will be made available at appropriate locations for potential spillages and interceptors will be located on all site drains. Completion of a COSHH Form.	Airport Environmental Manager
	Poorly managed fire water disposal	Risk to surface and groundwater environment	Activity to be undertaken in a designated area with active drainage and connection to the treatment lagoon. No fire-fighting training ground on site. Personnel to be trained in the use of spill kits and spill kits will be made available at appropriate locations for potential spillages and interceptors will be located on all site drains.	Airport Environmental Manager

Issue	Aspect	Impact	Control Measures	Action
	Spilled pesticides and herbicides	Risk to surface and groundwater environment	Pesticides and herbicides only to be used in a designated area with active drainage and connection to the treatment lagoon. Personnel to be trained in the use of spill kits and spill kits will be made available at appropriate locations for potential spillages and interceptors will be located on all site drains.	Airport Environmental Manager
Waste	Waste generation from welfare facilities and kitchen areas.	Environmental impacts of waste management	Implementation of a Site Waste Management Plan including, use of the waste hierarchy (prevention, re-use, recycling, other recovery and disposal). A waste stream colour coding system will be employed to aid the successful segregation of waste at source. This will include signs, bins or skips which indicate waste stream accepted. Segregated bins will be provided, including recyclable and food waste. Non-hazardous waste requiring to be sent to landfill will be tested and a Waste Acceptance Criteria classified applied and disposed of correctly. Obtain copies of all waste related licenses.	Airport Environmental Manager
	Hazardous waste (fluids and oils from aviation fuelling systems) storage and disposal	Contamination of land and water	Implementation of a SWMP including, use of the waste hierarchy (prevention, re-use, recycling, other recovery and disposal) and identification of hazardous waste products. All hazardous waste to be segregated from other waste streams to prevent cross contamination. Suitable containment, storage and onward travel is required. Hazardous waste will be disposed of correctly using suitable registered waste carriers and facilities. A full record must be maintained of all hazardous waste materials that are removed from the site.	Airport Environmental Manager
Lighting	Obtrusive night-time lighting	Disturbance to the public and nearby neighbours and ecological designations Health	Implementation of a Lighting Strategy to include: • Using high efficiency low energy LED lamp sources; • Appropriate luminaires and direction of use; • Controlling cut off angles to minimise upward light pollution to less than 2.5 % of luminaire flux; and • Compliance with the pre-curfew vertical illumination limit of 5 lux and post curfew limit of 1 lux on the façade of adjacent properties.	Airport Environmental Manager

Issue	Aspect	Impact	Control Measures	Action
Air quality	Vehicle and aircraft emissions	Disturbance to the public and nearby neighbours and ecological designations Health	HGVs will be scheduled and routes to avoid congestion and excessive emissions to the atmosphere, with a 'no excessive idling' policy also being enforced. Aircraft arrivals and departures will be planned to avoid idling, taxiing and hold times and over-long operation of liquid fossil-fuelled ground support equipment. Control measures to be implemented such as, bans on older, dirtier aircraft to minimise emissions. Use of Fixed Electrical Group Power (FEGP) to minimise engine / Auxiliary Power Unit use. Ground support equipment will be largely electrical and wherever possible, low emission ground source equipment will be used, with all ground source equipment meeting emission standards. Provide funding to TDC reinstate air quality continuous monitoring, providing real time hourly intervals.	Airport Environmental Manager
	Dust generating activities	Disturbance to the public and nearby neighbours and ecological designations	Implementation of a DMP which outlines appropriate management techniques that will reduce the potential for any dust related effects to nearby residents.	Airport Environmental Manager
Odour	Aircraft operations	Disturbance to the environment	Vapour recovery on avgas (aviation spirit) tanks. Treated water will be discharged via Pegwell Bay rather than to ground. Appropriate water quality monitored will be undertaken. Water Discharge Activity Permit will be required from the EA.	Airport Environmental Manager
	Aircraft operations	Disturbance to the public and nearby neighbours	Implementation of measures including vapour recovery. Odour complaints will be recorded and made available to the local authority.	Airport Environmental Manager
Ecology	Potential loss or damage to valued vegetation.	Disturbance to the environment	Implementation of a HMP. Maintenance of vegetation along runway edges. Prepare a Long Grass Policy.	Airport Environmental Manager
	Reducing and removing habitats which attract hazardous wildlife.	Bird strike Disruption to Airport operations	Implementation of a Wildlife Hazard Management Plan to remove or reduce habitats what attract hazardous wildlife and reduce reliance on reactive bird control measures to prevent bird strike.	Airport Environmental Manager

Issue	Aspect	Impact	Control Measures	Action
			This will include: • Wildlife control procedures to discourage or remove hazardous wildlife; • Research and development to understand wildlife dynamics; • Habitat modification practices to reduce attractiveness of land on and around the Airport to hazardous wildlife; and • Information and education programmes which communicate the hazards wildlife can create for aircraft operations. Reduce the requirements of bird control measures. Prepare a Long Grass Policy.	
Landscape	Potential loss or damage to valued vegetation, including tree roots.	Disturbance to the environment	Management of trees in accordance with the Tree Protection Plan.	Airport Environmental Manager
Socio-Economics	Airport operations	Reduction in levels of unemployment within the local area	Implementation of measures to optimise local recruitment and employment, such as: • Local training initiatives, including location of an aviation college; • Developing skills such as careers guidance, interview preparation and informal events; • Financial support such as paying for public transport to and from interviews and training sessions; • Recruitment measures tailored to those in local communities who are long term unemployed; and • Commitment to be a good quality employer.	Airport Environmental Manager

5. Traffic Management and Green Travel

5.1.1 The management of vehicles that will be generated by the Airport will be undertaken though two of the documents that have been prepared to support the DCO Application;

- Framework Travel Plan (FTP); and
- Preliminary Freight Management Strategy

5.1.2 The measures included within each of these documents is set out below.

5.2 Travel Plan

5.2.1 Implementation of a Travel Plan which incorporates objectives and targets for sustainable travel by public transport, cycling and walking.

5.2.2 Measures to achieve the objectives and targets include:

- Car parking management:
  - Car park operations team to manage car parks;
  - Provision of spaces for blue badge holders and electric vehicle charging spaces;
  - Charging regime to assist with the mode share targets being met;
- Bus provision;
  - Provision of safe and convenient bus stops onsite with relevant facilities;
  - Passenger shuttle bus service between Ramsgate Railway Station or Thanet Parkway and the Proposed Development;
  - Shuttle bus services in the local area for staff which will be based on shift patterns and staff home locations; and
  - If appropriate enhancement to an existing bus service such as the 48/48A or the 11;
- Cycle parking;
  - Secure and appropriately located cycle parking for staff and passengers;
- Footway provision;
  - Provision of pedestrian footways along Spitfire Way and Manston Road along the site frontage;
  - Provision of pedestrian crossings on Spitfire Way and Manston Road at junctions;
  - Upgrade PRoWs TR8, Tr9 and TR10 which link to Manston Green;
- Car share scheme for staff;
- Sustainable travel incentives will be promoted and implemented:
  - Adequate shower and changing facilities at staff areas;
  - Supply of umbrellas and wet weather gear for staff who walk or cycle to work;

- Incentives such as a free loan to purchase a bike through the cycle to work scheme will be promoted;
- Negotiation of discounts on equipment and clothing at local cycle and outdoor activities shops;
- Production of information on shuttle bus services and local walking and cycling routes to the Airport to be provided on the Airport website and printed for distribution to staff;
- Public transport season ticket loans to be promoted to staff as appropriate;
- Travel information and updates to be displayed in the terminal and at local transport hubs; and

- Monitoring of travel patterns to be undertaken on a regular basis as set out in the Travel Plan.

5.3 Preliminary Freight Management Strategy

5.3.1 Implementation of a Freight Management Strategy including:

- Identification of HGV routes, improvements to signage and provision of information on this to freight operating companies;
- Restrictions on HGV numbers existing the Airport cargo access during the peak hour periods – maximum of 10 HGVs as set out in the Transport Assessment;
- Cargo facility gatehouse to manage traffic onto and off the highways network which will be appropriately located to avoid queuing of HGVs onto the highways network;
- Cargo facility vehicle identification and tracking;
- HGV driver information packs; and
- Monitoring and review of HGV numbers to the Airport as part of the Travel Plan.

6. Monitoring, Audits and Inspections

6.1 Monitoring

6.1.1 Implementation of the contents of this OEMP will be monitored, to ensure that environmental management measures are in place and are effective in achieving their desired outcome.

6.1.2 The Airport Environmental Manager will be responsible for reviewing compliance of operations, including those of third parties, and taking appropriate measures to enforce the OEMP. Reporting procedures will follow the same general structure as set out below for the handling of complaints.

6.1.3 All operations and activities deemed to have an impact on the environment shall be regularly monitored and measured under the coordination of the Airport Environmental Manager.

6.1.4 In accordance with Regulation 25 of the EIA Regulations, appropriate monitoring measures will be implemented at the Airport and are set out within **Table 6.1** of this OEMP. As per paragraph 7 of Schedule 4, the Airport makes a commitment to:

"*measures envisaged to avoid, prevent, reduce or, if possible, offset any identified significant adverse effects on the environment and, where appropriate, [implementation] of any proposed monitoring arrangements (for example the preparation of a post-project analysis).*"

6.1.5 In this context post-project analysis means that any data collected will be analysed against the relevant standards (as set out in the approved, pre-operational commencement, version of this document). Results of the monitoring and analysis will be presented to TDC on an annual basis.

6.1.6 Any incident or non-compliance event will be reported to TDC and/or the appropriate authority (i.e. the EA) in line with the specific procedures to be finalised in each of the monitoring programmes indicated below.

6.1.7 RiverOak will define and finalise the monitoring programmes outlined below prior to commencement of construction activities at the Airport.

Table 6.1 Indicative Environmental Monitoring

Issue	Monitoring	Responsibility
Air Quality	• Provide funding to TDC to reinstate continuous air quality monitoring, providing real time hourly measurements of NO_x, NO and NO_2. The monitoring will be carried out using the chemiluminescence technique, in accordance with the approved European reference method (EN14211:2012). The results of the monitoring will be compared against the UK Air Quality Standards and Objectives for annual average and hourly average NO_2 concentrations[1]; • NO_2 will also be measured at a number of additional locations using diffusion tubes, which return a monthly average concentration result. This will be carried out in accordance with UK Defra guidance.[2] Tubes will be co-located with the continuous monitoring station (see above) to allow correction of the known bias in diffusion tube monitoring, compared to continuous methods. The monthly average results can then be averaged over a calendar year, bias-	Airport Environmental Manager

[1] The Air Quality Standards Regulations 2010, Available at: http://www.legislation.gov.uk/uksi/2010/1001/contents/made [Accessed 20 June 2019].
[2] Defra (2008). Diffusion Tubes for Ambient NO_2 Monitoring: Practical Guidance. [online] Available at: https://uk-air.defra.gov.uk/assets/documents/reports/cat05/0802141004_NO2_WG_PracticalGuidance_Issue1a.pdf [Accessed 20 June 2019].

Issue	Monitoring	Responsibility
	corrected and compared against the annual average UK air quality standard for NO_2; and • Odour will not be routinely monitored at the Pegwell Bay discharge but any complaints from the public will be recorded, followed by a site visit to the location of the discharge and a sensory odour survey in accordance with the recommendations for field odour surveys contained in the guidance document published by the Institute of Air Quality management (IAQM).[3]	
Biodiversity	• Monitoring objectives will be detailed in the HMP and the Method Statement for Environmental Monitoring. For Biodiversity these relate to the off-site Biodiversity Area: • Licensed bat surveyors will monitor the effectiveness of roost mitigation and compensation and provide maintenance as required. Monitoring will follow that detailed in the NE European Protected Species bat licence method statement, and reported to NE each year it is undertaken; • Reptile monitoring (population size class surveys) will occur every two years for six years beginning the year after translocation. Survey methodology will follow good practice, currently that detailed by Froglife[4]; • Breeding birds will be monitored for at least five years from the first breeding season post-habitat creation; These will be based upon the British Trust for Ornithology (BTO's) Common Bird Census (CBC) methodology[5] and will comprise six visits to the entire Site over the period March/April to June/July inclusive; and • Monitoring of the invertebrate habitat every three years for the first nine years. Appropriate groups will be surveyed following e.g. NE good practice guidance.	Airport Environmental Manager
Climate	• A CCAS has been committed to, it will be developed following DCO approval incorporating more detailed design information. A Framework version of the CCAS has been produced as part of the DCO examination process. The full CCAS will ensure the incorporation of climate change impacts in the design, construction and operation of the Proposed Development. Monitoring, in accordance with the developed CCAS, will be conducted including monitoring of KPIs to ensure the functionality of the Airport is not reduced by climate change over time; and • The CMAP will set out the targets and actions for minimising GHG emissions and the monitoring requirements. Monitoring will include metrics relating to emissions per passenger, emissions from construction activities, the use of operational efficient mitigations including FEGP and engagement with airlines to achieve targets for reduction of thrust levels during take-off. The CMAP will be agreed by the SoS and will be produced where the design is sufficiently advanced so that the effects of any measures will be better quantified, following DCO approval. It will be completed prior to commencement of site works.	Airport Environmental Manager
Landscape	• Within 25 years after planting, any trees/shrubs that are part of the landscaping which are either removed, die, become seriously damaged or diseased must be replaced; • Vegetation that does not establish successfully within the establishment period (to be agreed) shall be replaced by the landscape contractor; and • Condition inspections of both landscape elements, e.g. buffer planting, and environmental objectives, e.g. visual screening, to be carried out on a regular basis (to be agreed) and remedial action taken to ensure both condition and objectives are maintained at an acceptable level (to be agreed, e.g. A =	Airport Environmental Manager

[3] IAQM (2018). Guidance on the assessment of odour for planning. [online] Available at: http://www.iaqm.co.uk/text/guidance/odour-guidance-2014.pdf [Accessed 20 June 2019].
[4] Froglife (2016). Surveying for amphibians. [online] Available at: https://www.froglife.org/wp-content/uploads/2013/06/Amphibian-survey-booklet-3mm-bleed.pdf [Accessed 20 June 2019].
[5] BTO (2011). Common Bird Census. [online] Available at: https://www.bto.org/sites/default/files/u31/downloads/details/cbc.pdf [Accessed 20 June 2019].

Issue	Monitoring	Responsibility
	Excellent / As New, B = Good, C = Acceptable, D = Improvement Required, E = Replacement Required / End of Serviceable Life).	

Noise	• Monitoring of noise levels from aircraft at fixed noise monitoring terminals, and fines for noisy aircraft;
	  ○ Monitoring must be compliant with the BS ISO 20906:2009+A1:2013 standard, that refers to instrumentation that is compliant with the IEC 61672-1:2013 Class 1.
	  ○ Calibration standards are set in IEC 60942 that is referenced in IEC 61672-1:2013.
	  ○ Define appropriate monitoring locations (may also include mobile (temporary) noise monitors) in order to ensure that the system provides useful and reliable data (i.e. at locations where it is meaningful to obtain aircraft noise data, at sensitive communities, not contaminated by other sources, etc.).
	  ○ Determine appropriate threshold levels for the automatic detection of aircraft events from the system (i.e. based on background noise levels, duration of noise event, etc.).
	• Monitoring of tracks through installation of a Noise and Track Keeping System (NTK system), and fines for aircraft that stray from approved flightpaths.
	• NTK system must comply with the BS ISO 20906:2009+A1:2013 standard.
	• Define the area of radar coverage and radar position for effective position data monitoring and avoid radar interruptions that can lead to missing of flights, which can negatively affect correlation with noise data (system matches radar data to noise measurements from noise monitors).
		Airport Environmental Manager

Transport	• The KPIs for transport related monitoring are set out in **Table 4.2** and will include use of car parks, passenger and staff mode share, shuttle bus provision and traffic generation.
	• Monitoring of passenger travel:
	  ○ Car park usage;
	  ○ Shuttle bus usage;
	  ○ Travel surveys;
	• Monitoring of staff travel:
	  ○ Car park usage;
	  ○ Shuttle bus usage;
	  ○ Cycle parking usage;
	  ○ Travel surveys;
	• Monitoring of HGV movements; and
	• Monitoring of HGV in/out movements at Cargo gatehouse.
		Travel Plan Co-Ordinator

Water	• For the main site, monitoring objectives will be detailed in the Water Monitoring Strategy / Detailed Plan, which will cover:
	  ○ Monitoring of the airport facilities, cargo units and potentially contaminating activities by inspection and regular walkover surveys;
	  ○ Water level monitoring of attenuation ponds to identify possible leakage;
	  ○ Water quality monitoring frequency and analytical protocols;
	  ○ Locations to be monitored, which are likely to focus on the outfalls from the attenuation ponds;
	  ○ Regular inspections of tanks and operating facilities and tank integrity monitoring to be undertaken; and
	• A separate monitoring plan covering the same aspects will be developed for the fuel farm.
		Airport Environmental Manager

6.2 Audits and Inspections

6.2.1 As part of the day to day environmental management of Manston Airport, the Airport Environmental Manager will undertake regular inspections to ensure compliance with the OEMP

and minimise damage to the environment. These will involve measuring against environmental standards, relevant legislation and operational objectives.

6.2.2 The inspections will include the following:

- Checking aircraft and associated equipment for oil leaks and other signs of pollution;
- Waste refuse areas / facilities;
- Chemical storage facilities; and
- Location and appropriate storage of spill response kits.

6.2.3 Audits on this OEMP will take place twice annually.

Maintaining Records

6.2.4 In addition to the annual and incident specific reporting procedures described above, all records of monitoring, audits and inspections will be maintained, controlled and disposed of in accordance with the requirements of Manston Airport's Environmental Management System. These records will include:

- Audit results;
- Inspection and test results;
- Incident reports;
- Complaints;
- Management reviews;
- Waste management records; and
- Energy management records.

7. Certificates, Awards and Policies

7.1.1 [RiverOak to provide evidence of Environmental Policy and Environmental Management System].

8. Appendices

Appendix A: Airport Management Strategy

Appendix B: Car Park Management Strategy

Appendix C: Carbon Minimisation Action Plan

Appendix D: Climate Change Adaptation Strategy

Appendix E: Communications Plan

Appendix F: Complaints Investigation Procedure

Appendix G: Drainage Strategy

Appendix H: Dust Management Plan (DMP)

Appendix I: Emergency Response and Post-Crash Management Plan

Appendix J: Environmental Spillage Plan

Appendix K: Habitat Management Plan (HMP)

Appendix L: Landscape Masterplan

Appendix M: Lighting Strategy

Appendix N: Long Grass Policy

Appendix O: Method Statement for Environmental Monitoring (Bats / Reptiles / Noise Control)

Appendix P: Mitigation and Habitat Creation Plan (MHCP)

Appendix Q: Noise Mitigation Plan

Appendix R: Operational Emergency Plan

Appendix S: Pollution Incident Control Plan (PICP)

Appendix T: Preliminary Freight Management Strategy

Appendix U: Public Rights of Way (PRoW) Management Plan

Appendix V: Safety Health and Environment (SHE) Plan

Appendix W: Site Waste Management Plan (SWMP)

Appendix X: Surface Access Strategy / Airport Surface Access Strategy

Appendix Y: Surface Water Monitoring Strategy / Detailed Plan

Appendix Z: Training Plan

Appendix AA: Travel Plan

Appendix AB: Tree Survey and Protection Plans

Appendix AC: UXO Threat and Risk Assessment

Appendix AD: Wildlife Hazard Management Plan