<table>
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<tr>
<th><strong>Report Title</strong></th>
<th>Construction Environment Management Plan</th>
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<td><strong>Report Status</strong></td>
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<td>Issue</td>
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<td>5. Runway extension and construction activities</td>
<td>SAC, SSSI, Ramsar Site (intended)</td>
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Extract from Shepway District Council’s request of 5 March 2008

1. **INTRODUCTION**

1.1. In information previously submitted in December 2006 and in October 2007 to support the planning application for a proposed runway extension (ref: Y06/1648/SH) and new terminal building (ref: Y06/1647/SH) at London Ashford Airport (Lydd) ("LAA"), reference is made to providing a Construction Environment Management Plan ("CEMP"). This document provides more detail (as requested above) for the construction of the proposed runway extension, and follows the format of a CEMP. The proposed terminal building is to be constructed on existing hardstanding and, in accordance with the request from Shepway District Council ("SDC"), this outline CEMP focuses on the proposed runway extension. However, the principles in this outline CEMP can be adopted for the proposed terminal building.

1.2. This outline CEMP provides the management framework needed for the planning and implementation of construction activities. Its purpose is to reduce the risk of adverse impact of construction on sensitive environmental resources and to minimise disturbance to local residents. It also describes the processes that would be undertaken to ensure that appropriate corrective actions or mitigation methods are undertaken to minimise these impacts. It should be noted that this CEMP is outline and that it is envisaged that in the event that planning permission is granted a condition will be attached to the planning permission requiring the submission, based on this outline CEMP, of the final CEMP for the approval of Shepway District Council ("SDC") prior to commencement of development.

2. **PROJECT DESCRIPTION**

2.1. The proposed runway extension will involve the construction of 294m of additional pavement to the northern end of the existing runway, resulting in a total length of 1799m with a further 150m starter extension beyond the threshold of Runway 21 (see Figure 1)

2.2. A Runway End Safety Area (RESA) would run 300m from the end of the threshold and would be twice the width of the proposed runway (64m). The RESA will consist of semi-improved grassland and no pavement.

2.3. Construction of the runway extension is expected to take approximately 4 months to complete.

3. **LEGISLATION**

3.1. This outline CEMP has been designed to meet the requirements of the Construction (Design and Management) regulations 2007, the Health and Safety at Work Act 1974, the Management of Health and Safety at Work Regulations 1999, and the Control of Substances Hazardous to Health Regulations 2002. All personnel will have appropriate instruction on the use and application of these management plans to minimise environmental risks.
4. PLANNING OF CONSTRUCTION WORKS

The main contractor of the proposed runway extension will be required to prepare and submit to SDC a detailed programme of environmental works for the control of construction operations taking into account all the environmental constraints identified in the 2006 Environmental Statement and the 2007 Supplementary Information. A summary of the processes to be followed through the construction process and to be included in this programme of environmental works is as follows:

4.1. Register of Environmental Impacts

4.1.1 The register of environmental impacts would comprise the risks identified in the 2006 Environmental Statement and 2007 Supplemental Information documents and would be regularly updated to reflect any additional risks resulting from the contractor's selected methods of working and any changing site conditions following implementation of planning permission. Risks would be identified under the following general headings:

- Ecology
- Landscape Character & Visual Amenity
- Archaeology/Cultural Heritage
- Noise & Vibration
- Geology & Soils
- Water Quality, Drainage & Hydrology
- Air Quality & Emissions
- Combined Effects

4.2. Risk Assessments

4.2.1 All activities undertaken on site would be subject to an environmental risk assessment. Risk assessments would be undertaken by trained staff following an approved procedure which would:

- Identify the significant environmental impacts that can be anticipated (using the 2006 Environmental Statement and 2007 Supplemental Information documents as a basis).
- Assess the risks from these impacts.
- Identify the control measures to be taken and re-calculate the risk.
- Report where an inappropriate level of residual risk is identified so that action can be taken through re-scheduling of work or alternative methods of working in order to reduce the risk to an acceptable level.

4.2.2 The results of the risk assessments, and their residual risks, are only considered acceptable if: the severity of outcome is reduced to the lowest practical level; the number of risk exposures are minimised; all reasonably practical mitigating measures have been taken and the residual risk rating is reduced to an acceptable minimum. The findings of the risk assessment and in particular the necessary controls would be explained to all operatives before the commencement of the relevant tasks using an agreed instruction format (e.g. Toolbox Talks).

4.3. Method Statements

4.3.1 Method statements for the actual construction of the proposed runway would be completed on behalf of the main contractor or sub contractor by trained engineers or other appropriate experienced personnel, in consultation with on-site environmental staff and, where necessary, environmental specialists. Their production would include a review of the register of environmental impacts and risk assessments, so that appropriate control measures are developed and included within the construction process.
4.3.2 Method statements would be reviewed by the project's "Environmental Manager", the main contractor's or sub contractor's appointed environmental manager and, where necessary, by an appropriate environmental specialist. Where necessary, method statements would be submitted to the enforcement agencies (Environment Agency, Natural England, Environmental Health Officer etc.). Method statements would most likely contain the following:

- Location of the activity and access/egress arrangements.
- Work to be undertaken and methods of construction.
- Plant and materials to be used.
- Labour and supervision requirements.
- Health, safety and environmental considerations.
- Any permit or consent requirements.

4.4. Site Environmental Standards

4.4.1 Site environmental standards would be agreed with the Environmental Manager and would detail the minimum measures that should be achieved for general operations falling outside the risk assessment/method statement procedure. It would be designed to cover the majority of construction activities. These will cover issues such as storage of materials, management of waste, noise and vibration, and water pollution control. The standards will be printed on A3 posters, placed on site notice boards and used as a briefing tool on site. These standards will also form the basis of Toolbox Talks which will inform all contactors working on site of the potential environmental risks arising from construction activities.

5. EXISTING ENVIRONMENTAL CONDITIONS AND LANDTAKE OF PROPOSED RUNWAY

5.1. The proposed works for the runway extension will require excavation of topsoil to a depth of approximately 750mm, backfill with approximately 300mm of crushed hardstanding; and a final covering with approximately 450mm of asphalt. The total land take required for the construction of the runway extension is 12.85 ha (this figure is a slight adjustment to (and supersedes) the figure presented in paragraph 10.6.5 of Chapter 10 of the 2006 Runway Extension Environmental Statement and paragraph 2.1.1 of Chapter 4 of Volume 4 to the 2007 Supplementary Information). Of this 12.85ha, 1.04ha is required for the runway extension, 0.58ha for the starter extension, 2.23ha for the RESA, and around 9.0ha for the clear and graded area.

5.2. The construction activities (excavation of topsoil, laying of new runway and all vehicle movements) will be restricted almost entirely to this footprint. The construction area will be fenced off to prevent any construction activities infringing on SSSI or SAC areas beyond the working compound. The site access road will be an extension of the existing alpha taxiway to the west of the runway. Placing the construction access road here will allow movement of vehicles from the extension works, to the stockpiling and laydown areas and construction compound with minimal impact on the SSSI and SAC. The total runway length will be reduced to approximately 1000m during all construction works. Overall, the works are expected to require the excavation of approximately 19,500m³ of spoil. An outline of the proposed extension can be seen in Figure 1. An outline of the proposed construction activities can be seen in Figure 2.

5.3. There are no infrastructure works or ancillary facilities as part of the proposed runway extension. There are a number of environmental designations within the vicinity of the proposed runway extension, the location of which can be seen in Figure 1. In summary, the site is located in the vicinity of two sites of international nature importance, (Dungeness Special Area of Conservation (SAC) and the Dungeness to Pett Level Special Protection Area (SPA)). The site is also situated within the Dungeness, Romney Marsh and Ryebay SSSI and is in close proximity to two sites of Local Conservation Importance. Local riparian and shingle habitats also support a rich and unusual variety of plants and animals.

5.4. The proposed extension will mainly affect areas of rough grassland and arable farmland, as well as 1013m of agricultural drainage ditches. The works will also result in the loss of
approximately 1.82ha from the edge of the SAC (this represents 0.056% of the total SAC area).

5.5. **Water Resources**

5.5.1. The construction of the runway extension will require the infill and loss of 1013m of drains. This will potentially have a number of impacts including:

- Removal of any in stream and riparian flora, fauna and habitat;
- Reduction of storage capacity for drainage and surface waters; and
- Disruption of the natural hydrology of the immediate area.

5.5.2. Drains in the area of the runway extension footprint will be redirected following the routes shown in Figure 3. In summary, the existing drains will be abandoned during construction, and new drains approximately 1250m, will be constructed which run around the outline of the runway extension. These drains will connect to the existing drainage features and have been designed in accordance with the existing drainage consent held by LAA. The replacement drains will ensure adequate storage of runoff volumes from the runway extension during peak rainfall ‘events.’ This represents the best available option which will have the least impact on the SSSI and SAC areas and will maintain the hydrological regime of the wider ditch network.

5.5.3. The closest watercourse to the proposed runway works is the Dengemarsh sewer which is classified as a main river and controlled by the Environment Agency. Mockmill Sewer runs west-east adjacent to the northern boundary of the LAA site, before turning 90° down the western boundary of the LAA site and joining the Dengemarsh Sewer (See Figure 1). Construction activities also have the potential to detrimentally affect these watercourses.

5.5.4. Construction of these new drains may also result in potential environmental impacts including the following:

- Generation of approximately 1884m³ of spoil material;
- Potential erosion of the new banks and bed as the channel hydraulics’ and sediment patterns achieve a state of settlement or equilibrium;
- Sedimentation of the watercourses downstream of the new drains as a result of the earthworks and potential erosion of the new drains which may cause disruption to any downstream flora and fauna.
- Dewatering and discharge of site drainage may detrimentally affect watercourses.
- Run-off from stockpiles entering watercourses.

5.5.5. To mitigate against the potential impacts of contamination entering the aquatic environment during construction, the following measures will be applied:

- All spoil material generated by the construction of the new drainage ditches will be disposed of by infilling the sewers which are abandoned. Any surplus material will be spread onsite in an area known as the APSE Land currently owned by LAA, to the southwest of the existing runway (See Figure 2) (this land is not within the SSSI designation). An access road will link the stockpiling area directly to the construction area, this will negate the need for long term storage of spoil in stockpiles or off-site transport of spoil.
- None of the material is expected to be contaminated. Therefore, minimal turnaround times from stockpiling to laying are envisaged and impacts on quality of surrounding watercourses are not envisaged.
- All material will be stockpiled on the existing runway apron, away from any ponds, ditches or other surface water features. (See Figure 2).
Appropriate stormwater management measures will be designed and installed by the contractor prior to commencement of works to prevent erosion of any exposed soils/substrates and to prevent sediment laden or contaminated water draining offsite into adjacent controlled waters i.e. Dengemarsh and Mockmill Sewers. Such measures may include diversion channels around the site for discharge into treatment/retention ponds and will be developed in consultation with SDC, Environment Agency and the Internal Drainage Board.

Fuel/oil tanks and chemical storage tanks/areas will be provided with locks and placed on compacted areas, within bunds that have a capacity equal to 110% of the storage capacity of the largest tank, to prevent spilled materials from leaking offsite. All valves and couplings will also be located within the bunded area.

Where long term storage of spoil is anticipated, further measures to protect spoil heaps from erosion and to prevent sediment/contamination from entering watercourses will be implemented (e.g. seeding, compaction, covering with geotextiles).

Suitably sized oil interceptors will be provided in drainage systems downstream of any possible oil/fuel pollution sources. The oil interceptors will be emptied and cleaned regularly to prevent the release of oils and grease into the stormwater drainage system.

Measures will be taken to ensure that no leachate or any surface water that has the potential to be contaminated can enter directly or indirectly into any watercourse, underground strata or adjoining land; In particular, stockpiles will be located a sufficient distance away from water courses so as not to impact them with leachate. Stockpiles will also be covered with tarpaulin in wet weather to further limit the potential for leachate or erosion entering water courses. Water inflows to excavated areas will be minimised by the use of lining materials, good house keeping techniques and by the control of drainage through oil interceptors/silt traps in order to prevent the contamination of groundwater. All construction material will be stored on hardstanding and faces of excavations will be sheeted in wet weather.

Site personnel will be made aware of the potential impact on ground and surface waters associated with certain aspects of the construction works to minimise the incidence of accidental impacts; All staff will also be trained in the appropriate use of spill kits and absorbent geotextiles to quickly respond to any spillages.

Refuelling of construction vehicles and equipment will be restricted to a designated area with properly designed fuel tanks and bunds and appropriate operating procedures; drip trays will be used under machinery during all re-fuelling operations. Re-fuelling operations will only be undertaken by qualified personnel.

All permanent and temporary channels and any temporary attenuation ponds will be maintained to prevent flooding and overflowing and protected where necessary against erosion;

All temporary hardstanding areas and exposed surfaces or storage areas will be designed to discharge to attenuation ponds. They will not discharge to watercourses, drains or flow offsite in an uncontrolled manner;

Portable chemical toilets and sewage holding tanks will be placed onsite to accommodate sewage generated by the construction workforce. A licensed contractor will be responsible for their appropriate emptying, disposal and maintenance;

Handling and storage of any potentially contaminating material will only occur in designated areas to prevent discharge to watercourses or the drainage system;

No washdown areas will be located near any watercourse, or open drain and washdown waters will be collected and directed to appropriate treatment; and

A spill management plan (detailed in section 9.0 of this CEMP) will be in place at all times.
5.5.6. It is proposed that should planning permission be granted, a planning condition is attached requiring LAA to undertake chemical analysis of watercourses before, during and after construction to indicate that the mitigation methods are performing effectively. This will demonstrate to SDC that the mitigation measures are adequate, feasible and delivering to prevent impacts on water quality.

5.6. Landscape and Visual Impact

5.6.1. The site of the proposed runway extension lies within the Romney Marshes Character Area (Character Area No. 123). The site also lies within the Dungeness Shingle Character Area. Further details of these Character Areas are provided within the Landscape Strategy Report.

5.6.2. The construction of the runway extension will result in the loss of farmland on the edge of, and just within, a Local Landscape Area designated primarily because of its characteristic mixed farmland with few hedgerows or trees and compartmented by drainage ditches. The designation does, however, include other visually quite different landscape uses such as the nearby Lydd Golf Course and is immediately adjacent to the large area of managed grassland within the existing airport to which the changed use of the site would be an addition. Therefore any potential visual impacts must be mitigated with reference to these existing background conditions.

5.6.3. The most likely visual impacts on receptors during construction will be the presence of temporary fencing, haul road surfaces, exposed bare soil and stockpiles of materials and the movement of earthmoving and runway laying machinery on the site. Lighting will also be employed to provide a safe and efficient working environment.

5.6.4. Minimisation of visual impact is achieved mainly by the benefit of the distance that exists between the site and the great majority of receptors, the flatness of the site and its surroundings and the visual similarity of short mown grass on the airport and grazing land or low vegetable crops on adjacent farmland which, at a distance, become almost indistinguishable in terms of both colour and texture.

5.6.5. Lights will be located so that beams are directed to the area required and so that they do not allow light to filter out from the sides. Lights will be of minimum brightness required for safe working conditions and for security.

5.6.6. Following the even spreading within the area known as the APSE land of the surplus soil (approximately 19,500m3) generated from excavations to construct the runway extension, the land would be graded and seeded. Seen at a distance of 500m or more by all but a small number of transient farm or airport workers, this change in level will be imperceptible.

5.7. Cultural Heritage

5.7.1. No known archaeological remains or monuments will be affected by the proposed works. However, there will be a slight impact to the historic landscape’s key cultural attributes, notably to the pattern of drains and to the sluice at the junction of Paine Field Sewer and Mockmill Sewer. These drains may have medieval origins.

5.7.2. The main mitigation measure is for the requirement of archaeological works (including geomorphology) to be discussed with SDC and the County Archaeologist. These works are likely to involve a watching brief during the excavation of the ditches as well as sampling of soils from the Denge Marsh deposits to record palaeoenvironmental information. Such measures will address the requirements of PPG16. In addition, all staff will receive training on how to recognise archaeological remains and if any such remains are found on site during excavations, works will cease and the opinion of a suitable qualified archaeologist will be sought.
5.8. Ecology

5.8.1. A number of potential ecological impacts have been identified that may arise from the proposed construction works, including direct habitat loss, the potential for contamination and siltation (primarily of watercourses), disturbance of habitats and species and incidental mortality.

5.8.2. Permanent habitat loss will arise through the construction of the new runway pavement and starter extension, the management of the clear and graded area and the realignment of the drainage ditches. Temporary habitat loss could arise from the construction and use of the haul road, the stockpiling of soils and the creation and use of the construction compound.

5.8.3. Primarily, the habitats potentially affected would be semi-improved (rough) grassland (3.17ha) and arable grassland (9.68ha) as well as 1013m in length of standing/running water (from the relocation of ditches) and marginal vegetation. The land take will also involve the loss of less than 1% of designated land from the very edge of the Dungeness SAC.

5.8.4. Species at risk of being detrimentally affected by construction works include; water voles; medicinal leeches; common lizard; grass snakes; great crested newts and other amphibians and otters. Vegetation (aquatic and terrestrial) surrounding the runway extension may also be impacted. The majority of these species are sensitive to changes in water quality or habitat changes arising from chemical contamination and/or siltation, with the main pond (Pond A) considered particularly sensitive. Species could be adversely impacted on by any spills or releases that affected prey availability (particularly amphibians and invertebrates) or led to the bioaccumulation of contaminants in prey. Further assessments of the potential for changes in water quality have been addressed in Section 6.2 of this outline CEMP and in Chapter 7 of the Environmental Statement.

5.8.5. Species may also be affected by increased noise, vibration and lighting levels resulting from the works. Most of the faunal species known to inhabit the area however, are considered to be relatively tolerant to human disturbance as evidenced by their co-existence with an operational airport and are considered equally likely to habituate to any temporary noise disturbance from construction.

5.8.6. In significant quantities, dust can cause smothering of sensitive vegetation and the deposition over time can cause potential habitat loss. Whilst it is likely that dust generated as part of the construction works could reach the SAC and SSSI, in areas located adjacent to and immediately downwind of the site, the proposed development is unlikely to involve the release of dust in sufficient quantities or over sufficient timescales (as it is considered a temporary impact lasting only approximately 4 months) to result in a significant impact on the SAC and SSSI hence a negligible effect is predicted. Section 6.7 of this outline CEMP contains further details on the mitigation of potential impacts from dust.

5.8.7. As lichens uptake substances directly from the atmosphere and lack protective cuticles, they are particularly sensitive to environmental stress, especially concerning atmospheric pollution. However, the proposed construction works are unlikely to involve the release of airborne pollutants, principally dust, in sufficient quantities or over sufficient timescales to result in a significant impact.

5.8.8. Further details of the current status of existing populations, and how the airport environment will be improved, are included in the outline Biodiversity Action Plan (BAP).

5.8.9. Examples of specific mitigation measures to limit the potential impacts on ecology include the following:

- Protection of important habitats from accidental leaks or spills of oil or other petroleum-based products is extremely important. All fuels, oils and other potentially contaminating materials will be stored in securely bunded areas, as detailed in section 6.2 of this outline CEMP. No potentially contaminated drainage will be discharged directly to any surface waters;
• Dust suppression measures will be implemented throughout the site; including spraying of stockpiles and dry haul roads with water in dry and windy conditions, or covering of stockpiles with tarpaulin in wet conditions. If more permanent stockpiles are required, these will be stabilised either through seeding or with geotextile membranes;

• The construction area will be almost entirely limited to the footprint of the runway extension. Areas outside the footprint will be fenced off to prevent unauthorised access by site plant or personnel or any incorrect storage, for example of spoil. This will limit impacts on designated ecological sites;

• Vehicle movement will be confined to existing roads and access tracks. A new construction access road will be constructed to the west of the existing runway, which will be based on the existing taxiway. This will negate the need for vehicle movements in the areas of the SSSI and SAC;

• Any access over vegetation and soils will be limited to dedicated access tracks used only by vehicles with wide tyres to minimise damage;

• Drainage ditches to be lost, or those to be retained but which may need some modifications, would be strimmed prior to commencement, so that vegetation is at ground level sufficient to allow any animals present to seek refuge elsewhere. In addition, following any species-specific measures the drains will be carefully drained down and any animals present allowed to disperse naturally where possible over a period of several days;

• The extent and duration of work within and adjacent to the waterbodies / drainage ditches will be minimised to reduce the severity of impacts resulting from silt disturbance upon the aquatic and terrestrial habitats.

5.8.10. Where any protected species are discovered after construction work has begun the site manager will carry out the following:

• Stop work immediately in the area
• Demarcate the area and restrict access to ensure that there is no disturbance to the habitat or species
• Order that no attempt to disturb or remove the protected species be made
• Record details of the incident, including photos and relevant information on an Environmental Incident Report Form.

Mitigation measures for specific species

Phasing of works will take into account the various species’ periods of particular vulnerability, for example vegetation clearance should only be done outside the bird nesting season which is generally regarded as between March-September. Any works should also avoid times when great crested newts are travelling between ponds and should also avoid areas where there is evidence of particular habitats.

Great crested newts

Any works should avoid times when great crested newts (GCN) are travelling between ponds, unless the area has been trapped. Any trapping will be consistent with standard methods outlined in the great crested newt conservation handbook, where the length of trapping time is dependent on a detailed survey and population estimate.

To further limit the impacts of construction works on GCN, the following mitigation measures will also be adapted and are described further as part of the Biodiversity Action Plan for LAA.

• The current ponds to the east of the existing runway will be improved to create more suitable habitats for GCN.
• The improved ponds will also include new refugia for GCN including stones and logs.

• Several GCN suitable scrapes will be created to the south of the existing runway.

• A new ditch will link the existing drainage ditches to the southeast of the runway. This will provide additional habitat for GCN and allow a corridor link between the ditches.

• ‘Pond A’ (Shown on Figure 3) will be substantially improved to create additional suitable habitat for GCN.

• Where drainage ditches are being retained, but modifications required, the loss of marginal and bankside vegetation will be minimised as will the use of hard engineering structures along the banks avoided.

• To reduce the risk of siltation and contamination of watercourses during operation, vegetated ditch banks will be enhanced, following advice from Natural England, and additional buffer zones planted, such as reedbeds/wetlands, to act as filters to naturally retain silt and potential contaminants, such as petroleum products while they degrade.

Reptiles

Reptiles are likely to be present throughout the proposed construction site and measures to avoid their incidental mortality will need to be employed. For example, grass would be kept short and scrub cover removed to discourage use by reptiles. Considerable tracts of suitable habitat in the vicinity are available for any displaced reptiles. Works in areas of suitable hibernating reptile habitat would be undertaken during the summer months, when reptiles are active rather than during the hibernation period.

Further mitigation measures implemented during construction to prevent and/or minimise potential adverse effects associated with the temporary changes in air quality; water quality and drainage; and noise and vibration on sensitive ecological receptors are discussed in the other sections of this outline CEMP.

Ornithology

Before any significant construction works or earthworks commence at LAA, the Bird Control Team employed by LAA will conduct a local risk assessment to determine the potential of these works to attract hazardous birds and will recommend appropriate modifications or mitigation measures should they be required. Works and reinstatement will follow appropriate engineering & construction standards.

5.9. Traffic Impacts

5.9.1. The construction period for the runway extension is scheduled to last for approximately 4 months. The majority of HGV movements will be generated by the construction of a temporary access road to join the existing taxi way that will take construction traffic to the construction site. It has therefore been assumed that most of the HGV movements will be generated in the first month of construction.

5.9.2. In making this assumption, assessment is made of the realistic worst-case level of additional vehicle trips. The construction is forecast to require 10,000 cubic metres of aggregate. This will be transported to the site by HGVs with a capacity of 20 cubic metres. This equates to 500 two-way vehicle trips.

5.9.3. The proposed development will increase the percentage of HGV vehicles on some of the surrounding roads. This impact is set out in Table 1 below. The increase in HGV movements
does not increase the percentage of HGV traffic to above 10% on any of the affected roads even when considering a realistic ‘worst case’ scenario.

Table 1 Construction Traffic Impact

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<th>Baseline % HGV</th>
<th>Additional HGV Flows (per weekday)</th>
<th>Overall % HGV</th>
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<td>A259 Lydd Rd</td>
<td>7.5</td>
<td>50</td>
<td>8.1</td>
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<tr>
<td>B2075 Romney Rd</td>
<td>5.7</td>
<td>50</td>
<td>6.5</td>
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<tr>
<td>A2070</td>
<td>7.8</td>
<td>50</td>
<td>9.3</td>
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5.9.4. An agreed route for construction vehicles will be set up in agreement with SDC in order to reduce the level of disruption on the surrounding road network. The operational hours of the construction site may be restricted in order to prevent additional HGVs during the peak periods of the day. The concentration of HGVs in the initial stages of the construction will reduce the longer term impacts on the road network.

5.9.5. To limit impacts of traffic on ecology, traffic movements will be limited to designated access roads. The main phase of construction will take place outside of the main nesting birds season and traffic movements will only take place after trapping of GCN habitats has been undertaken.

5.9.6. Traffic would access the site via the existing taxiway to the west of the existing runway. The taxiway would be extended to provide a road directly linking the area of the new runway extension to the construction compound, area for stockpiling and area for spreading out of surplus spoil.

5.9.7. A timetable of works will be discussed with SDC which would avoid excessive vehicle movements at night. Normal hours of operation would also be agreed with SDC, but would most likely be from 08:00 – 18:00 Monday to Friday and from 09:00-16:00 on a Saturday. These would constitute the ‘normal’ construction working hours.

5.10. Air Quality

5.10.1. It has been considered in the 2006 Environmental Statement and the 2007 Supplementary Information that the potential for dust to cause impacts is likely to be limited to approximately 200m from construction works that have dust generation potential. However, construction traffic and plant also have the potential to impact on human health and ecosystems via exhaust gas emissions. In addition, if particularly dry and windy conditions prevail, the potential for dust migration over longer distances than 200m cannot be discounted.

5.10.2. Whilst there are no residential properties within 200m of the proposed works, the Dungeness SAC and the Dungeness, Romney Marsh and Rye Bay SSSI lie within 200m of the proposed construction site. In addition, residential properties adjoining the airport access roads e.g. Forty Acre Farm, and farms along the B2075 to Hammonds Corner, could be impacted by dust from roads. The assessment of nuisance dust effects is based on the assumption that appropriate control measures would be applied during construction.

5.10.3. The potential for dust generation and its transport to sensitive receptors is highest during dry, windy conditions. In general, construction activities associated with the greatest potential for dust generation are:

- Earthworks including excavation of topsoil, handling on site and deposition;
- Handling and storage of materials (including loading and unloading);
- Haulage roads and unsealed site surfaces (including vehicles travelling along them);
- Wind blow across disturbed site surfaces and materials; and
- Mechanical operations such as crushing, drilling, concrete mixing and cutting.
5.10.4. It is currently anticipated that the construction of the proposed runway extension will not generate a significant surplus of excavated material, and it is envisaged that the majority of material can be re-used on site with little requirement for offsite disposal.

5.10.5. The employment of Best Practicable Means (BPM) would minimise the risk of adverse effects from construction dust and should avoid causing nuisance or damage to flora and fauna. The control of nuisance dust will also limit the possibility of air borne sediment entering watercourses. Specific control measures for limiting nuisance dust and fumes during construction are as follows:

- To ensure that atmospheric dust, contaminants or dust deposits generated by the construction work do not exceed levels which could constitute a nuisance to local residents or damage to ecosystems, or site equipment, it is proposed that visual inspections of dust, odours and exhaust emissions be undertaken along the airport approach roads and along the boundary of the construction works. Additional positions for air quality monitoring points should also be discussed with SDC.

- A trained and competent person should carry out monitoring on a weekly basis. However, if dry windy weather prevails then the rate of monitoring should (initially) be increased to daily, and increased to 4 times per day, if levels remain high.

- The prolonged storage of debris on site, in temporary stockpiles, will be avoided. Vehicles removing demolition or site clearance materials must have their loads effectively sheeted on all sides. Crushing of material for reuse, transportation or disposal should be undertaken as far away as possible from sensitive receptors.

- Burning of waste material should be avoided if possible.

- Excavation faces, when not being worked, should be sheeted.

- The number of handling operations should be minimised, ensuring that dusty material is not moved or handled unnecessarily. Fine material should be delivered to site in bags. Drop height must be kept to a minimum.

- Stockpiles should be located as far away as practicable from potential receptors, with slopes at angles less than the natural angle of repose of the material. Stockpiles should be sheeted, contained within wind barriers or potentially damped down.

- Hard-standing areas for vehicles entering, parking and leaving the site should be provided, with wheel washing facilities at access points. Site roads should be cleaned regularly, and damped down if necessary to prevent nuisance dust. Site vehicle movements should be kept to a minimum and, where possible, restricted to paved haulage routes. Vehicle speeds should be limited to 20 km/h or less on surfaced roads, and 10 km/h on unpaved surfaces. The idling of vehicles should be kept to a minimum.

- To prevent excess exhaust fumes, equipment and plant should be in a good state of repair and serviced regularly.

5.10.6. The site manager would have responsibility on a day to day basis for determining if either the nature of the activities on site or weather conditions would be likely to result in the transfer of dust off site. Were this to be the case, remedial action would be taken to minimise emissions, including the application of appropriate control measures, or if necessary, the temporary suspension of works.

5.10.7. Good site management practices during the construction works will help to prevent the generation of airborne dust. It will be the responsibility of the nominated contractor and site manager to ensure through this CEMP that sufficient precautionary measures to limit dust generation are in fact taken.

5.11. Noise and Vibration
5.11.1. This section outlines the potential sources of nuisance noise created by construction works and the methods of mitigation proposed to limit these impacts.

5.11.2. All mitigation measures proposed will be addressed with reference to BS 5228 'Noise and vibration control on construction and open sites' which gives recommendations for basic methods of noise control relating to construction sites and other open sites where construction activities are carried out. It details the legislative background to noise control, along with the recommended procedures for effective liaison between developers, site operators and local authorities. Methods on how to minimise the impact of site noise on workers and local residents are also provided.

5.11.3. Mitigation measures will also take into consideration the Department of Environment (DoE) Advisory Leaflet (AL) 72, which gives advice as to maximum levels of construction site noise at residential locations during daytime hours. The leaflet states that the noise level outside the nearest occupied room should not exceed 70 dB(A) in rural, suburban and urban areas away from main road traffic and industrial noise. This increases to 75 dB(A) for urban areas near to main roads. Specific construction noise limits are site specific, and are agreed on an individual basis with the relevant local authority. The 70 dB(A) value is used as the threshold of significance in this assessment. BS7445:1991 Description and Measurement of Environmental noise (Parts I to III) has also been considered.

5.11.4. The magnitude and significance of the effect of construction noise depends upon a number of variables, including:

- The noise generated by plant or equipment used on site, generally expressed as sound power levels;
- The periods of time site plant is operational, generally expressed as on time and measured as a percentage.
- The distance between the noise source and the receptor;
- The level of attenuation likely due to ground absorption, air absorption and barrier effects.

5.11.5. Some construction activities can also be a source of ground-borne vibration, which can be a cause for concern at the nearest receptors. Typical activities include compaction, breaking and piling.

5.11.6. The impact at the nearest properties from any vibration activities is a function of the vibration source and the propagation path to the receptor; larger distances reduce the impact. Due to the large distances involved, construction vibration will not be discernible at the receptor locations. The impact of construction vibration will therefore be negligible.

5.11.7. The main mitigation measure to limit impacts of nuisance noise on human receptors is to agree appropriate noise levels with SDC and to undertake noise monitoring during construction to make sure these agreed thresholds are not breeched. If agreed limits are breeched then construction may be halted.

5.11.8. In addition, it is proposed that construction works will not take place outside the hours of 0800-1800 Monday to Friday and 0800-1600 on Saturday, unless otherwise agreed by the SDC.

5.11.9. All contractors and sub-contractors working on-site have a general duty to take all possible measures to minimise nuisance from noise and vibration that has potential to impact on the local community or environment. To achieve this BPM, as outlined in section 79(9)(a) of the Environmental protection Act 1990, must be employed and the following requirements must be complied with:

- The implementation of the works must comply with BS6472: 1992 (Evaluation of Human Exposure to Vibration in Buildings 1Hz to 80Hz)).
To prevent significant damage to adjacent structures, demolition and construction activities must be carried out in accordance with BS7385: part 2: 1993: Evaluation and measurement for vibration in buildings.

Noisy Plant or equipment should be sited as far away as is practical from noise sensitive receptors.

To reduce the distribution of noise all construction areas should be enclosed within plywood faced, timber framed boundary hoarding which has a minimum height of 2.4m and a surface density not less than 7kgm$^2$.

All machines in intermittent use shall be shut down in the intervening periods between work or throttled down to a minimum

All items of plant shall be maintained in good working condition.

All vehicles and mechanical plant used for the purpose of the work must be fitted with effective exhaust silencers.

All compressors should be “sound reduced” models fitted with properly lined and sealed acoustic covers which will be kept closed whenever the machines are in use. All pneumatic percussive tools shall be fitted with silencers or mufflers.

Where necessary and practical, equipment that breaks concrete by bending rather than by percussion must be used.

Where practical, rotary drills actuated by hydraulic or electrical power should be used for excavating hard material.

5.12. Solid Waste Management

5.12.1. The proposed runway extension will result in the will involve the following earthworks:

- Excavation of top soil to a depth of approximately 750mm;
- Backfill with 300mm of crushed hardstanding material and
- Cover with 250mm of coarse grade Road Base Asphalt and 200mm of fine grade Marshal Asphalt, with the aggregate size and layer thickness reducing up to the wearing course.

5.12.2. A number of drains will also need to be realigned as part of these works and the proposed construction methodology for the drains is as follows:

- The new sections of drains will be constructed first;
- The junctions between the new drains and the old drains will be formed by stone filled gabions; and
- The old drains will be backfilled with 250mm layers of spoil and each layer will be compacted before the next layer is added.

5.12.3. Some 19,500m$^3$ of spoil will be generated by the runway excavation works and a further 365m$^3$ from the excavation of the new drains. None of this material is expected to contain contaminated material, so it is proposed that it will all be re-used for the infilling of excavation works, with all excess material being spread out within an area of land currently owned by LAA to the southwest of the existing runway. The excess spoil will then be grassed over. The location of this area can be seen in Figure 2 and does not carry any designations such as SSSI. No spoil will be taken off–site apart from any material which is considered to be contaminated.

5.12.4. Other wastes from construction activities are likely to include the following:

- Imported aggregate used for temporary access roads
- General waste
- Building materials
- Packaging wastes
- Hazardous waste
- Paint waste
- Electrical waste
6. IMMEDIATE ACTIONS TO BE TAKEN IN THE EVENT OF AN ENVIRONMENTAL INCIDENT

In the event of any environmental incident the following procedure will be followed:

The most senior representative of the main contractor will take the role of the responsible person and will take charge of the situation. Where possible, the responsible person will take immediate steps to minimise the impact on the environment and mitigate against any environmental damage. The following spill response procedure will also apply on site – as detailed in Figure 6.1 below.
7. RESPONSIBILITIES

7.1. The table below assigns responsibility for specific activities to a member of the construction management team.

<table>
<thead>
<tr>
<th>Activity</th>
<th>Responsible Person</th>
</tr>
</thead>
<tbody>
<tr>
<td>Produce Environmental Control Plan</td>
<td>Project Manager</td>
</tr>
<tr>
<td>Review Environmental Control Plan</td>
<td>SHEQual Advisor</td>
</tr>
<tr>
<td>Carry out Environmental Induction Training on site</td>
<td>Construction Supervisor</td>
</tr>
<tr>
<td>Carry out Environmental Tool Box Talks</td>
<td>Construction Supervisor</td>
</tr>
<tr>
<td>Undertake Weekly Site HSE&amp;Q Inspections</td>
<td>Construction Supervisor</td>
</tr>
<tr>
<td>Carry out Waste Management Duties on site</td>
<td>Construction Supervisor/Nominee</td>
</tr>
<tr>
<td>Carry out Monthly HSE&amp;Q Inspections</td>
<td>SHEQual Dept</td>
</tr>
<tr>
<td>Carry out HSE&amp;Q Audits</td>
<td>SHEQual Dept</td>
</tr>
<tr>
<td>Produce Method Statement/Risk Assessments for activities with environmental risk</td>
<td>Construction Manager/Sub Contractor</td>
</tr>
<tr>
<td>Ensure measures detailed in the Environmental Control Plan are carried out</td>
<td>Site Foreman/Construction Supervisor</td>
</tr>
<tr>
<td>Ensure instructions from the Client are implemented</td>
<td>Construction Manager/ Construction Supervisor</td>
</tr>
<tr>
<td>Carry out Emergency Procedures</td>
<td>Site Personnel/Construction Supervisor/Construction Manager</td>
</tr>
<tr>
<td>Liaison with the Environment Agency</td>
<td>Construction Manager/ Construction Supervisor</td>
</tr>
<tr>
<td>Liaison with other Interested Parties/Statutory Bodies</td>
<td>SHEQual Advisor</td>
</tr>
</tbody>
</table>
Figure 1
1. All existing drains and sewers beneath the proposed runway extension to be abandoned.
2. All drains and sewers outside the runway perimeter shown thus are to be abandoned and filled in.
3. Footpaths and tracks crossing the proposed runway are to be closed and diverted.
4. Track to be abandoned shown thus.
5. Sewer/drain diversion shown thus.
6. RESA - Runway end safety area.
7. Dimensions shown on this drawing are indicative only and must not be used for setting out.

B Grassland and Margin
C Road Four Lanes
D Grassland and Pine
E Miscellaneous
F Green Belt
G Bridleways

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FSE92324E—Figure 1

London Ashford Airport
Project
Lydd Airport Masterplan

Site plan showing designated areas & habitats

Date: 27/05/2008
Scale: 1:2,500 @ A2

Drawn by
Project

Produced by

Checked by

Approved by

This drawing was produced using AutoCAD and should on no account be amended by hand.
Figure 2
At end of contract any remaining spoil will be spread across this area of land owned by the Airport.

Runway maintained operational but reduced in length to 1000 m for duration of the works

Temp spoil heaps for different types of excavated material

Alpha taxiway closed to aircraft and extended to form temp access road for construction traffic

Site compound

Site access road

Airside / Landside Boundary
Figure 3
NOTES

1. All existing drains and sewers beneath the proposed runway extension are to be abandoned.
2. All drains and sewers outside the runway perimeter shown thus are to be abandoned and filled in X X X X X
3. Existing tracks shown thus X X X X X will be diverted