

Construction Environmental Management Plan (CEMP)

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This document forms Appendix B.2 of the Construction Phase Plan (Annex U)

Contents

1	Introduction	3
2	Environmental Aspects & Impacts	3
3	Specific Project Environmental Requirements	3
3.1	Unexploded Ordnance	3
3.2	Working Hours	4
3.3	Traffic Management	4
3.4	Local Community Engagement	4
3.5	Surface Waters, Wells and Source Protection Zones	5
3.6	Contaminated Land/Groundwater & Dewatering	5
3.7	Standing Heritage & Archaeology	5
3.8	Ecology & Biodiversity	5
4	General Project Environmental Requirements	6
4.1	Waste Management	7
4.2	Storage of Fuel, Oils & Building Chemicals	7
4.3	Working on Liquid Fuel Lines & Storage Systems	8
4.4	Managing Concrete Wash Water	8
4.5	Particulate Matter (Dust) & Noise	8
4.5.1	Mobile Crushing & Screening Process	8
4.5.2	General Site Activities	9
4.6	Previously Unidentified Issues	9
4.7	Subcontractor and Supplier Environmental Reporting	9
4.8	Emergency & Incident Preparedness	10
4.9	Monitoring, Auditing & Reporting	10
4.10	Management Structure & Responsibilities	10
4.11	Training Awareness & Competence	10
5	Resource Efficiency	10
5.1	Materials & Design	11
5.2	Soils & Aggregates	11
5.3	Energy, Fuel & Water	12
6	Safety	12
7	Legislation, Regulation and Other requirements	12
Schedule I	Environmental Aspect & Impact Assessments	14
Schedule II	Site Constraints Layout Plans	15
Schedule III	Design Decisions	17
Schedule IV	Additional Schedules	18

1. Introduction

This Construction Environmental Management Plan (CEMP) has been prepared in accordance with the Kier Safety Health Environmental Management Standards (SHEMS) and Guidance. It identifies specific environmental issues associated with former RAF Wethersfield and stipulates the procedures that will be used to manage them. Relevant environmental information will be communicated as required.

A copy of the CEMP will be always kept onsite at Wethersfield. There will be a review Monthly and/or when any material changes occur to ensure it remains up to date.

All amendments to this CEMP must be made and documented by project management in consultation with the Safety, Health and Environmental Manager or Environmental Manager/Adviser.

All work undertaken at Wethersfield is in accordance with Construction (Design & Management) Regulations (CDM) 2015.

2. Environmental Aspects & Impacts

Prior to commencement of the project, (defined as the regeneration of former RAF Airfield accommodation site in support of Asylum Accommodation Programme (Non-Detained) projects for the Home Office). or each asset an environmental aspect and impact assessment must be undertaken in accordance with the Aspect and Impact Management Standard Annex A (SHEMS-STD-GR-067 Environmental Aspect and Impact Assessment Standard). For guidance on completing the Aspects and Impacts Register see Annex B (SHEMS-REG-CON-014 Aspects and Impacts Register). Please contact your Safety, Health and Environmental Manager or Environmental Manager/Adviser.

The assessment looks at each site activity against the following environmental aspects:

- Emissions to Air
- Emission to Land
- Emissions to Water
- Waste Generation
- Nuisance & Environmental Health
- Ecology & Biodiversity
- Cultural Heritage
- Use of Raw Materials
- Use of Natural Resources
- Human Health

Details of the control measures identified in the assessment will be communicated to relevant subcontractors. Subcontractors must manage all risks/impacts associated with their work activity/package in accordance with this document.

Where the subcontractor identifies additional environmental risk/impacts the Project Environmental Co-ordinator (PEC) and Project Manager must be informed, and the Aspect & Impact Assessment must be reviewed and amended as required.

In the event subcontractors undertake works that require reference to document(s) listed in section 2.3 of the Construction Phase Plan (Part A), these will be provided/incorporated into their contract as part of the subcontract documentation.

Kier may, from time to time, externally communicate information relating to significant environmental aspects and the company's performance. Such decisions will be made by appropriate management and documented.

3. Specific Project Environmental Requirements

This section incorporates information derived from documents scheduled in 2.3 of the Construction Phase Plan.

3.1 Unexploded Ordnance

As referenced in Annex C (Wethersfield Outline CEMP) - An Unexploded Ordnance (UXO) Preliminary Risk Assessment was produced in April 2017 for a slightly wider area, which includes the Site (and the Operational Area). The assessment identified a moderate risk on parts of the Site due to shallow buried UXO hazards associated with a WWI bombing range, WWII bomb stores, munitions disposal, and small arms and machine gun ranges. The assessment indicates that management options may be required to address the residual contamination from UXO and the Supplementary Storage Area (SAA) depending on the future use of the Site. We will ensure a UXO specialist provides a watching brief during any excavation that takes place in and around the former World War I aerodrome within the Site. A UXO specialist will be in attendance and will clear all locations for excavation prior to breaking ground as required.

Prior to service users being permitted on site the Home Office will conduct the required walk over surveys and submit the relevant documentation inclusive of any applicable remedial steps to the Ministry of Housing, Communities and Local Government (MHCLG) as per condition 13 of the Wethersfield SDO.

Prior to breaking ground any significant contamination risks have and will continue to be identified, and appropriate integral mitigation measures will be implemented. If contamination is suspected soil sampling will be undertaken and works suspended until the type of contamination present has been identified and an appropriate strategy has been identified to either remediate the contamination.

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Any contaminated materials shall be classified in line with the European Waste Catalogue (EWC) codes and will be disposed of in an appropriate manner to a suitably licenced landfill facility. Radiological contamination cannot be entirely discounted at the Site. The following measures and monitoring requirements are to be adhered to in relation to Ground and Geo-Environmental Conditions/Impacts. Additionally, a UXO Specialist will be onsite to inspect any intrusive works to advise, should any unexploded ordnance be found.

If any unexploded ordnance was identified the following would occur:

- Works would stop immediately, and the area evacuated and secured
- The police would be notified via the site Project Manager

3.2 Working Hours

Working hours to enable the refurbishment works and installation of modular units on the Site will be in accordance with the standard construction working hours, [REDACTED]

Emergency works may be required to be carried out outside of these hours. examples of emergency works are power outage (cable strike), mains water leak, structural defects in buildings, storm damage, however, works are limited onsite, so this scenario is unlikely.

There is no specific time when activities may not be carried out. All works will take place within the specified working hours detailed in this CEMP.

3.3 Traffic Management

Construction and servicing vehicles will use [REDACTED] Should there be blockages at these gates then alternate entrances will be used during the construction phase to prevent overcrowding and to limit the potential for backlog onto the strategic highway network. The location of the access gates will be reviewed on a regular basis to minimise effects to the road network. A security guard house will be located at each of the active gate entrances and will be Staffed 24hrs per day, 7 days per week. As referenced in Annex C (Wethersfield Outline CEMP), subsection 3.3 Traffic Management for full details.

Vehicles wherever possible will only travel on hard standing. Where access is required to soft ground, operatives will undertake checks to minimise any depositing of construction or mud on to areas of hard standing. Where required, remedial actions will be undertaken by the vehicle operative.

There will be a vehicle washing station at all operational gates gate (see Traffic Management Layout Plan) for washing of vehicle tyres before entering the highways. Wheel washes were located originally at the main entrance and gate 8. Following protests, alternative gates were opened (but not all were used) - gates 4, 4a and 6. Constructors use Gate 7 for access. Vehicle parking and one way system are in place as shown on the layout plan in Schedule II - Site Constraints Layout Plans.

The site is provided with a vehicle road system and pedestrian pavements. Vehicle safety control measures include a maximum speed limit of 15MPH, speed ramps, road signage and designated "zebra" pedestrian crossing points. Street and road lighting is provided. There are adequate vehicle parking facilities throughout the site near to buildings. On the airfield area (runway, taxiways, and aprons) the speed limit is 25mph. Opportunities for sustainable travel are outlined in the Travel Plan which include encouraging car sharing.

3.4 Local Community engagement

As referenced in Annex C (Wethersfield Outline CEMP), the Site is in the open countryside, approximately 1.4km north of Wethersfield and 2.6km east of Finchingfield. The nearest large town to the Site is Braintree which is 10.6km to the south.

Kier have engaged with local contractors but all engagement with the local community is done through the Home Office. The Home Office engages with key strategic stakeholders, neighbouring residents and the local community to inform and keep updated on impacts and issues relating to the site. There are multiple forums for engagement, including the Multi Agency Forum (MAF), subgroups, monthly Parish Council meetings and a bespoke operational meeting which covers local community impact.

Additionally, the Home Office takes a proactive approach to provide updated information to the local community. The Home Office Facilities Management Team have provided and exchanged direct contact details with various residents and representatives of the local community, e.g. the private residential properties on Sculpins Lane, and have regular dialogue, including ad-hoc face-to-face meetings, to discuss and respond to issues of concern to residents/the local community.

There is also a Home Office Communications Plan which includes the following points for engagement with the local community:

- A Factsheet and a Community Update Newsletter both published on the GOV.UK website, highlighting new information to ensure this is clear and readily available to the public. These are updated when there are key updates to give.
- Working with the media team on any proactive moments and reacting quickly if there are incidents of interest to the public or stakeholders. This means sharing lines and information with stakeholders for reactive enquiries.

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Members of the local community can raise any concerns or questions relating to the Wethersfield site via a Home Office designated email address: public.enquiries@homeoffice.gov.uk.

This email address is also on the Community Update Newsletter. The Home Office can also be contacted by phone or mail, details of which can be found on the GOV.UK website,

3.5 Surface Waters, Wells and Source Protection Zones

Project Located Within	Applicable (Y/N)	Authorisations
8m of a Main River, culvert or flood defence	N	FRAP
16m of a tidal river, culvert or flood defence	N	FRAP
16m of a sea defence structure	N	FRAP
Flood Zone 2 or 3	N	Flood Risk Assessment
Source Protection Zone 1	N	Piling Risk Assessment and no discharge to piling matt (option 2b of Annex D "SHEMS-GUI-GR-063i (SHEMS-GUI-GR-063i Managing Concrete Wash Water"))
In, under, over or within 8m an Ordinary Watercourse	N	Ordinary Watercourse Land Drainage Consent/lead local flood authority agreement
50m of a watercourse	N	No discharge to piling matt (option 2b of Annex D "SHEMS-GUI-GR-063i (SHEMS-GUI-GR-063i Managing Concrete Wash Water"))
250m spring, well or borehole	N	

Kier Places are subcontracted to provide Facilities Management services on the Wethersfield site. This includes all buildings, infrastructure, utilities, and integral systems, including heating and water systems including the drainage network. We will manage and maintain these elements (Planned Preventative Maintenance activities) in line with the SFG20 standard. Refer to 12 - Wethersfield Operational Management.docx – 50. Facilities Management for the list of elements of FM that will be included in the PPMs and reactive FM service provision.

Foul and Greywater drains have been identified on-site and will be maintained to the appropriate standard as required by environmental legislation, the local water authority (Anglian Water) or equipment requirements.

3.6 Contaminated Land/Groundwater & Dewatering

The results of the non-intrusive walkover survey did not indicate the presence of any significant radiological contamination in the surface and immediate subsurface layers of areas surveyed. Noted that the walkover survey reports on contamination in surface layers only (~ 100 mm) due to the shielding effect of overburden. Therefore, even though the nonintrusive walkover survey did not indicate the presence of any radiologically significant contamination, absence of any such contamination at depth cannot be guaranteed. Recommended that monitoring is performed during any intrusive groundworks.

Any contaminated materials/soil that arise shall be classified in line with the European Waste Catalogue (EWC) codes and will be disposed of in an appropriate manner to a suitably licenced landfill facility. Radiological contamination cannot be entirely discounted at the Site and so the following measures and monitoring requirements are to be adhered to in relation to Ground and Geo-Environmental Conditions/Impacts:

As identified within Section 3.1 a UXO specialist will be available for any excavation and appropriate testing and analysis will be undertaken to correctly classify and dispose of potentially contaminated soils.

3.7 Standing Heritage & Archaeology

There are no impacts which have a higher likelihood than low, anticipated with the construction of the Proposed Development and therefore no mitigation measures are necessary.

3.8 Ecology & Biodiversity

Project Located Within	Applicable (Y/N)	Notes
Local Wildlife Site (LWS)	N	Discharge of planning condition
Local Nature Reserve (LNR)	N	Discharge of planning condition
National Nature Reserve (NNR)	N	Discharge of planning condition
RAMSAR	N	HRA and Assent/Consent for works
Site of Special Scientific Interest (SSSI)	N	Assent/Consent for works
Special Area of Conservation (SAC)	N	HRA and Assent/Consent for works
Special Protection Area (SPA)	N	HRA and Assent/Consent for works

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500m of SSI, SAC or SPA	N	Temporary Dewatering from Excavations to Surface Water <u>RPS 261 RPS</u> cannot be used
50m of any of the designated sites listed above	N	No discharge to piling matt (option 2b of Annex D "SHEMS-GUI-GR-063i Managing Concrete Wash Water")

A Preliminary Ecological Assessment along with further surveys have been carried out by AECOM. Refer to docs:

- Annex G Wethersfield Tree Survey
- Annex E Wethersfield Preliminary Ecological Appraisal Report (PEAR)

Arboriculture - No trees or hedges are expected to be removed due to the works. Tree retention and protection measures will be adhered to in line with Kier as referenced in Annex F (SHEMS-MST-CON-0086 Tree and Hedgerow). Protection and details of the tree surveys conducted can be found as referenced in Annex G (Wethersfield Tree Survey).

Further measures and monitoring requirements stipulated by the client are as follows:

- Any tree work will require an application for approval by Secretary of State of Housing, Communities and Local Government (except emergencies).

Ecology – In line with the PEAR (Annex E Wethersfield Preliminary Ecological Appraisal Report) produced, no monitoring is required but the following is to be noted: The Proposed Development is not anticipated to directly disturb badger on Site as field evidence of badgers was identified greater than 30 m distance away from the Proposed Development and suitable habitats on Site are not anticipated to be impacted.

Twelve records of Schedule 1 birds within the study area but no specific constraints and recommendations are provided in relation to Schedule 1 birds. It can be concluded with a high degree of confidence that there will not be a likely significant effect from the Proposed Development on any European sites, either alone or in combination with other projects and plans.

Further measures and monitoring requirements stipulated by the client are as follows:

Lighting - As referenced in Annex C (Wethersfield Outline CEMP).

To ensure existing wildlife corridors around and within the Site are maintained any new lighting required in the vicinity of the modular units and existing buildings will be well designed to an appropriate specification and direction so as not to impact the surrounding environment. This will also include all adjoining owners and occupiers which will be affected.

Non-construction related lighting will be positioned to ensure there is no spill beyond the boundary and only be kept operational from nightfall until sunrise/early morning for security and navigation purposes only.

Noise - In accordance with The Control of Noise at Work Regulations 2005, construction will be limited to 85 Decibels, however this could be exceeded for very short period of times. Any work involving increase noise level in designated working hours.

4. General Project Environmental Requirements

4.1 Waste Management

All waste will be managed in accordance with the Waste Management Standard as referenced in Annex H (SHEMS-STD-GR-065 Waste Management (1)) and where relevant, the Soil Management and Contaminated Land Standard as referenced in Annex J (SHEMS-STD-GR-061 - Soil Management and Contaminated Land).

Significant waste streams expected to be generated at Wethersfield are the following:

- Mixed construction & demolition waste
- Packaging
- Asbestos

Where possible efforts will be made to reduce construction waste volume through use of closed loop/waste minimisation schemes. Example of such could include waste timber/pallets collected for direct re-use/recycling by Community Wood Recycling and requesting for suppliers to takeback (plastic) packaging.

All waste produced as part of the works is managed and removed in a timely manner and in compliance with section 34 of the Environmental Protection Act 1990 and associated legislation by Kier and their designated sub-contractors. Waste is removed from the internal areas of the buildings using wheeled receptacles and bags as appropriate – chutes are not in use. All skips are placed in designated areas (hard standing where possible) and are collected on a call-off basis by approved suppliers.

Where appropriate, waste streams are separated at site into separate collection receptacles. Refer to Schedule II - Site Constraints Layout Plans.

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During any construction phase, hazardous waste (e.g. asbestos) will be managed by a specialist hazardous waste contractor either to be directly removed off-site by them or segregated and contained suitably on-site for immediate removal when possible. All hazardous waste is to be sent to an appropriate licensed facility.

When considering management options for identified waste streams, Kier and supply chain members will adhere to the principles outlined in the waste hierarchy below.



Kier and its sub-contractors must ensure waste is stored away from drains, boreholes, wells, and controlled waters. Containers shall be in good condition and, where required, covered to prevent dust and litter being blown out. If there is any likelihood of stored waste contaminating the area surrounding the site, all necessary steps must be taken to ensure no contamination occurs. This may include the use of containment bunds with rain shelters and the use of sealed containers, i.e., clip-top drums and fluorescent tube coffins.

Before waste is treated and/or removed from former RAF Wethersfield, all subcontractors/waste contractors must provide the project team with legible copies of the following documentation:

- Environmental permits (mobile plant licences) and exemption certificates authorising on-site crushing and screening activities.
- Waste Carriers Registration Certificates.
- Environmental Permits, (Waste Management Licences and Pollution Prevention Control Permits).
- Notification certificate of exemption from environmental permitting.

The project team and, where applicable, subcontractors will ensure that the removal of all inert/non-hazardous waste is recorded on waste transfer notes (WTNs). Legible copies of all WTNs must be kept for a minimum of two years following collection. These documents will be stored on site and made available on request.

The project team and, where applicable, subcontractors will ensure the removal of all hazardous waste is recorded on hazardous waste consignment notes (HWCNs). Legible copies of all HWCNs must be kept for a minimum of three years following collection. These documents will be retained on site and made available on request.

Legible copies of all WTNs and HWCNs, recording the removal of waste from RAF Wethersfield must be issued to Kier. This includes waste generated on-site by subcontractors.

When removing hazardous waste from projects located in England or Wales, a premises code must be recorded on all HWCNs. A premises code is to be generated in accordance with section 4.4.2 of the Waste Management Standard as referenced in Annex H (SHEMS-STD-GR-065 Waste Management (1)).

4.2 Storage of Fuel, Oils & Building Chemicals

Fuel, oil and chemicals will be managed in accordance with the Pollution and Nuisance Standard see Annex I (SHEMS-STD-GR-063 Pollution and Nuisance (1)) and COSHH Standard see Annex K

(SHEMS-STD-GR-051 COSHH). Please also refer to Annex L (Oil and Fuel Storage - Above Ground (1)) and Chemical & Paint Storage see Annex M (SHEMS-GUI-GR-063g Chemical and Paint Storage) Mandatory Guidance.

Containers must be stored within a Spill Nappy (or similar), bund or any other suitable secondary containment system (SCS). All containers must be in a safe place to minimise the risk of damage and locked-off when not in use.

For oil tanks, intermediate bulk containers and mobile bowsters the SCS must be able to hold:

- Where one container is being stored - a minimum of 110% of the total volume.

Business Stream Form Construction Environmental Management Plan

- Where more than one container is being stored - a minimum of 110% of the largest container's storage volume, or at least 25% of their total volume (whichever is greater).
- For drum storage, the interceptor tray must be able to hold at least 25% of the total storage capacity of the drums.

Bunded areas must be made impermeable to water and oil and protected from the ingress of rainwater. The base and walls of the bund must not be penetrated by any valve, pipe or opening that is used for draining the system. As per the oil storage regulations for Business BS5410

Oil storage areas (including generator locations) that are likely to be in use for more than 2 months must have an impermeable surface, i.e., they must be concrete. The impermeable surface must extend a sufficient distance to ensure minor leaks and spills from refuelling operations can be safely identified and contained. Well stocked, appropriately sized spill kit(s) and plant nappies or equivalent pads must be located at each storage area.

The location of all oil storage areas and mobile bowzers must be inspected and approved by Kier before use. Approved locations will be labelled on the Site Constraints Layout Plan (see schedule II). Where practicable, separate oil storage areas should be established for each subcontractor.

All oil storage areas and mobile bowzers must clearly display an Enviro-tag. Enviro-tags must be completed by Kier as part of the inspection regime prior to installation and first use of all oil storage areas and mobile bowzers. Subsequent routine monitoring must be undertaken as a minimum on a weekly basis. During inspections, relevant guidance provided in this minimum standard should be referenced by scanning the QR code printed on the Enviro-tag.

4.3 Working on Liquid Fuel Lines & Storage Systems

Works on fuel tanks and lines must be covered by suitable RAMS. Where applicable, control measures must account for potential environmental risks, e.g. surface waters, groundwater, drinking water treatment facilities and nature conservation sites. A photographic record of fuel line and/or tank decommissioning works must be retained with photographs taken before, during and on completion of the works.

All wastes, including fuel and oils must be managed in accordance with the Waste Management Standard see Annex H (SHEMS-STD-GR-065 Waste Management (1)).

4.4 Managing Concrete Wash Water

Concrete wash water contains suspended solids and is highly alkaline (has a high pH). Solutions that are highly alkaline are as harmful to the environment as strong acids. Unlike wet concrete that is poured into the ground, concrete wash water is very mobile and can easily enter drains and controlled waters, e.g., groundwater, rivers and reservoirs, causing significant harm to aquatic life and the environment.

The hierarchy of control described in Managing Concrete Wash Water see Annex D (SHEMS-GUI-GR-063i Managing Concrete Wash Water) will be used to identify and implement suitable control measures for managing concrete wash water. Options 1C-3A will **only** be considered where the subcontractor and/or concrete supplier can demonstrate 1A and 1B are not practicable. A member of the Kier Safety, Health & Environment (SHE) team must approve selected management options prior to concrete being delivered to site. Approved site-specific management options are filed in schedule IV of this CEMP.

The location of all proprietary equipment, containers etc. must be inspected and approved by Kier before use. Approved locations will be labelled on the Site Constraints Layout Plan (see schedule II).

All areas used to manage concrete wash water must clearly display an Enviro-tag. Enviro-tags must be completed by Kier as part of the inspection regime prior to installation and first use of all concrete wash water areas. Subsequent routine monitoring must be undertaken as a minimum on a weekly basis. However, where a Temporary Trade Effluent Consent is in place, monitoring must be undertaken as specified within the authorisation.

4.5 Particulate Matter (Dust) & Noise

Dust and noise will be managed in accordance with the Pollution and Nuisance Management Standard see Annex I (SHEMS-STD-GR-063 Pollution and Nuisance (1)).

In accordance with The Control of Noise at Work Regulations 2005, construction will be limited to 85 Decibels however this could be exceeded for very short period of times.

4.5.1 Mobile Crushing & Screening Process

N/A – There will be no crushing or screening on the project.

There will be no crushing or screening on the project. However, if required crushing and screening will be managed in accordance with the Waste Management Standard see Annex H (SHEMS-STD-GR-065 Waste Management (1)) and the Demolition – Mobile Crushing and/or Screening Operations Minimum Standard see Annex Q (SHEMS-MST-GR-0050 Demolition - Mobile rock crushing and-or screening operations).

Crushing and screening of demolition material must be conducted in accordance with the plant operation manual and, where applicable, environmental permit (mobile plant licence)/waste exemption

Business Stream Form Construction Environmental Management Plan

certificate. The operator must use the best available techniques (BAT) for preventing or, where this is not practicable, reducing emissions from the installation. The following items must be considered when attempting to reduce the environmental impact of this process:

- Location
- Operation
- Maintenance
- On-site transfer of dusty materials
- Condition of roadways/haulage routes
- Stockpiling materials

4.5.2 General Site Activities

With regard to nuisance, the methodology in which work activities are undertaken must apply best practicable means (BPM) in order to minimise negative impact on local, sensitive receptors, such as schools and domestic dwellings. However, if measures to reduce excessive dust and noise are unsuccessful, work must stop, and an alternative method devised before work can resume.

The following measures must be considered when attempting to reduce noise and dust:

- Use sheeted lorries and sealed/covered skips.
- Use dust extraction equipment when drilling and cutting.
- Damp down haulage roads and stockpiled materials in dry or windy weather.
- Sweep access roads regularly.
- Grass over/stabilise topsoil which is being stockpiled for landscaping or offsite reuse.
- Locate plant and equipment away from sensitive receptors.
- Use screens, including earth bunds to act as acoustic barriers.
- Isolate plant and equipment when not in use.
- Fit white noise systems on vehicles to reduce noise nuisance when reversing.
- Keep engine compartment doors closed.
- Limit vehicle movements on-site, e.g. use of one-way system.

4.6 Previously Unidentified Issues

If one or more of the following is discovered, work in that location must stop immediately and the Project Environmental Co-ordinator (PEC) informed: The area must be made safe and secured with barriers and safety tape (refer to the table at page 9 and 10).

- Contaminated soils (Annex J SHEMS-STD-GR-061)
- Archaeological remains or features (Annex X SHEMS-STD-GR-060)
- Suspicious objects
- Underground storage tanks
- Invasive species (Annex V SHEMS-GUI-GR-062d)
- Protected species (Annex W SHEMS-GUI-GR-062f)
- Unexploded Ordnance

If evidence of invasive species is found during construction, then consultation with an appropriately qualified ecologist.

4.7 Subcontractor and Supplier Environmental Reporting

Subcontractors and suppliers must adhere to the [Responsible Procurement Strategy](#). Where applicable, they must also provide the following information/documentation on a weekly basis to the Kier project team:

- A record of the number of litres of fuel delivered to site, e.g. red diesel (gas oil), white diesel and petrol.
- Volume of water used on site (where separate subcontractor supplies are in use, e.g., standpipes).
- Legible copies of all waste transfer notes (WTNs) and hazardous waste consignment notes (HWCNs).
- Legible copies of all chain of custody certificates belonging to suppliers delivering new timber to site.
- Legible copies of all timber delivery notes.
- Legible copies of all recycled aggregate delivery notes (volume of aggregate must be recorded on notes).

4.8 Emergency & Incident Preparedness

To minimise the risk of a pollution incident, subcontractors must ensure all operatives understand the environmental risks associated with their work activity and what control measures are in place to eliminate or reduce negative environmental impact.

Major environmental incidents shall be reported and managed in accordance with MIRP Standard as referenced in Annex O (SHEMS-STD-GR-013 Major Incident Response Plan).

Environmental emergency planning must be managed in accordance with the Fire Management Site Standard as referenced in Annex N (SHEMS-STD-GR-020 Fire Management) and Appendix B.6 of the Construction Phase Plan (Annex U). The Major Incident Response Plan must be implemented where relevant.

Investigation and reporting of environmental incidents must be undertaken in accordance with the Incident Reporting and Investigation Standard as referenced in Annex P (SHEMS-STD-GR-011 Incident Reporting and Investigation).

Emergency spill kits are supplied on site and can be operated by trained operatives. Fuel for plants and operation is contained in bunded tanks and Kier have a 24/7 emergency spill response with Adler and Allan. The contractors/site operator would keep a record of all spillage incidents and inform the nominated undertaker should any spills occur, which could cause land contamination or pollution off-site and provide records to the Environment Agency if required.

4.9 Monitoring, Auditing & Reporting

Please refer to 6.18 of the Construction Phase Plan Annex U

4.10 Management Structure & Responsibilities

Please refer to 6.1 and 6.2 of the Construction Phase Plan. Annex U

4.11 Training Awareness & Competence

Following a survey and authorisation from the client, all contractors are appointed using the Keir internal framework as defined in the contract.

We will make arrangements for the appointment and retention of a suitably qualified archaeologist, arboriculturist, ecologist, ordnance specialist or contamination expert, to carry out, supervise or verify any work in relation to the construction of the authorised development to which their expertise is relevant. We will make provision of awareness training to contractors in relation to contamination, unexploded ordnance and other risks that may be associated with construction work.

Please refer to 4.14 of the Construction Phase Plan (Annex U).

SHE training and information for this project will be provided through the following:

- Site Induction
- SHE Notice Boards
- Regular Site Meetings
- Regular SHE Meetings
- Toolbox Talks
- SHE Bulletins/Alerts
- RAMS/Briefings

Contractors must ensure individual competency can be demonstrated in accordance with Kier standards. Any training need identified is to be addressed by the relevant contractor and monitored to ensure compliance.

Contractors must ensure that relevant environmental and occupational health toolbox talks are provided in addition to safety related talks to project personnel at a minimum frequency of per month. Delivery of additional toolbox talks may be required by Kier.

All supervisors/managers are required to provide evidence of relevant training and/or qualification e.g. 2-day SSSTS or the 5-day SMSTS course.

5. Resource Efficiency

Kier has adopted the principles of resource management planning as developed by the Waste and Resources Action Programme (WRAP). The resource management planning process is broken into five stages, together with a feedback loop.



By implementing the Construction Resource Efficiency Strategy, the project team will:

- Demonstrate innovation.
- Support the requirements of environmental assessment methods, such as BREEAM.
- Go beyond compliance.
- Build more efficiently and reduce risk.
- Achieve environmental benefits.
- Create savings for all stakeholders.

5.1 Materials & Design

No influence on design of modular blocks/refurbishment work.

A list of design decisions has been recorded in schedule III of this plan. The items listed are based on the twelve resource efficiency themes identified by WRAP. Further information can be obtained from the project design manager/assistant design manager.

All materials on site are delivered and managed in line with 'good order' in line with the requirements of the 'Health & Safety at Work Act' and the associated 'Management of the Health & Safety Regulations'

As a tier one supplier, Kier and their sub-contractors are all compliant with the supply chain and procurement governance processes of the Ministry of Justice whom these services are procured through.

Material storage is in designated areas only, with appropriate separation or separate storage as appropriate.

Any storage of hazardous materials, flammable gases or other appropriately categorised materials that is necessary will only remain on site for the minimum period required to complete works only. During works, they are managed in line with the RAMS relevant to the task being undertaken. As soon as practically possible, they are removed from site. There is no storage at height with all areas being kept tidy.

Deliveries are grouped together to minimise traffic as far as is reasonably practicable.

Where required, materials that must be left in open areas that are specifically designated for that purpose and appropriately protected.

Timber and timber-based products will comply with the Timber Purchasing Minimum Standard see Annex S (SHEMS-MST-GR-0007 Timber Purchasing).

5.2 Soils & Aggregates

N/A - The following table records the requirement for soils and aggregates on the project.

Item	Origin	Y/N	Source	Volume (tonnes)	Use	Control
Untreated topsoil	Site	N/A	N/A	N/A	N/A	WFD/RPS Soils
Treated topsoil, e.g. screened		N/A	N/A	N/A	N/A	U1/P19/MMP
Untreated subsoils		N/A	N/A	N/A	N/A	WFD/RPS Soils
Treated subsoils, e.g. screened		N/A	N/A	N/A	N/A	U1/P19/MMP
Treated/untreated made ground		N/A	N/A	N/A	N/A	U1/P19/MMP

Business Stream Form Construction Environmental Management Plan

Recycled aggregates		N/A	N/A	N/A	N/A	U1/P19/MMP
Asphalt/Road Plannings		N/A	N/A	N/A	N/A	U1/P19/MMP
Untreated topsoil	Import	N/A	Facility & address	N/A	N/A	U1/MMP/RPS Soils
Treated topsoil, e.g. screened		N/A	Facility & address	N/A	N/A	U1/MMP/RPS Soils/Manufac.
Untreated subsoils		N/A	Facility & address	N/A	N/A	U1/MMP/RPS Soils
Treated subsoils, e.g. screened		N/A	Facility & address	N/A	N/A	U1/MMP/RPS Soils/Manufac.
Virgin aggregates		N/A	Facility & address	N/A	N/A	N/A
Recycled aggregates		N/A	Facility & address	N/A	N/A	U1/P19/QP

5.3 Energy, Fuel & Water

Site accommodation at Former RAF Wethersfield conforms to the Site Accommodation & Welfare Units Minimum Standard see Annex T (SHEMS-MST-CON-0081 Site Accommodation Welfare Units).

6. Safety

Construction workers on site are required to submit RAMS which will be reviewed by the Kier team prior to approval to proceed whilst onsite at Wethersfield:

Those visiting Wethersfield are required to follow the following safety measures whilst construction work is ongoing:

- Request access to the site from the from Home Office. Once access is approved, the Home Office will issue the required instructions to visitors.
- PPE including high visibility jacket and steel toe cap boots should be worn at all times.
- All visitors are required to sign in and out and provide emergency contact details. Completion of a site induction upon arrival at the site.
- Visitors are to be escorted around the site at all times.
- Designated pathways and roads should be used at all times.

All areas of construction (except emergency works) will be inaccessible to resident service users, however during their induction (Annex Y – Site Induction) upon arrival on site they will be made aware of any construction and any applicable safety measures they will be required to follow.

The areas where construction works are taking place will be managed under CDM. The areas will be secured using Heras fencing, appropriate signage and will be secured with locks at the end of each working period. Access will be controlled manually by the area supervisor with any visitors managed under CDM using the appropriate induction.

Environmental and Quality Policy Statement CDM (Construction design management regulations 2015). All sub-contractors would be required to work within the requirements of this CEMP and the relevant policies. Copies of the policies are displayed on office notice boards and would be briefed to all staff as part of their induction.

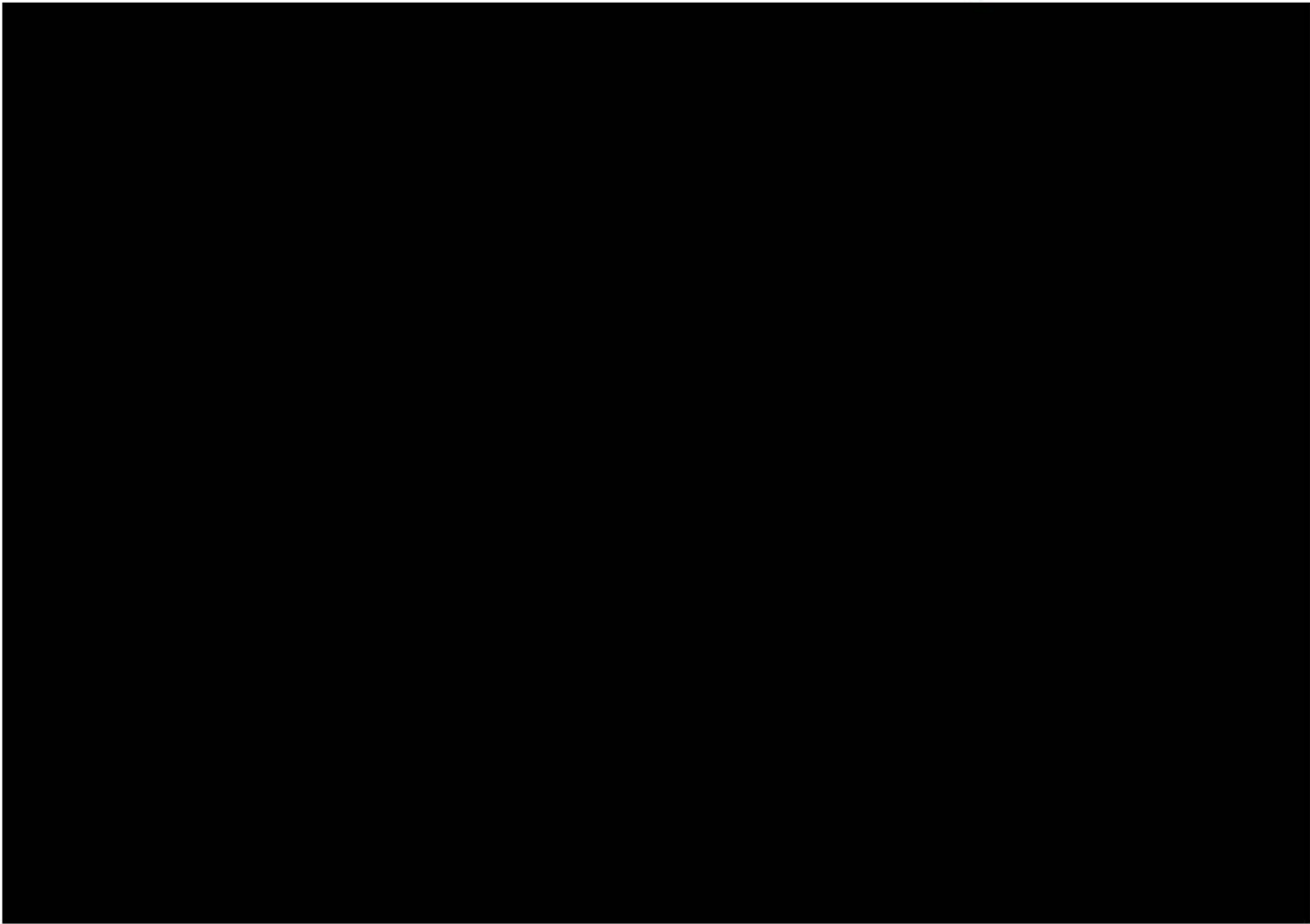
7. Legislation, Regulation and Other Requirements

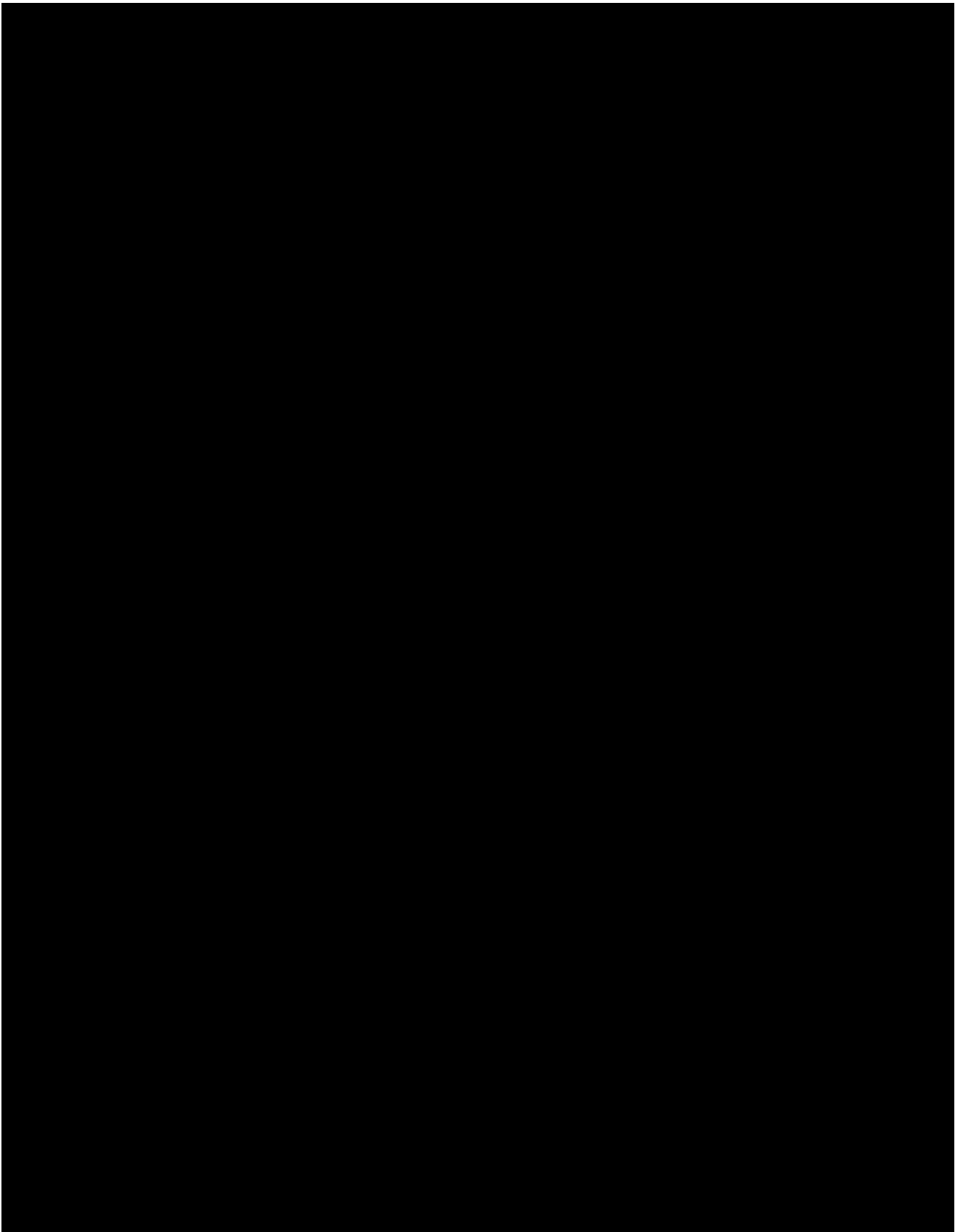
- All works shall be carried out in accordance with the relevant environmental legislation, other regulatory requirements and best practice. The Principal Contractors would develop Plans and Procedures, an Aspects and Impacts
- Registers, Risk Assessments and Method Statements to manage environmental hazards, risk and commitments. These documents will be updated as necessary and submitted for review throughout the lifetime of the Project.

Business Stream Form Construction Environmental Management Plan

The Principal Contractor's Health, Safety and Environmental and Quality Policy Statements are attached in Annex Z (POL-GR-001 Health, Safety and Wellbeing policy) and Annex AA (POL-GR-021 Environmental Policy).

Business Stream Form Construction Environmental Management Plan
Schedule I - Environmental Aspect & Impact Assessments
(see Annex B)





Schedule III - Design Decisions

Design Decisions – RAF Wethersfield	Y/N
Reclaimed products or components have been specified	N/A
Materials from demolition and/or other work phases have been incorporated into the design <i>Examples: Bricks and tiles to be reused, soils to be reused, stonework to be reused, architectural features, e.g. large coping stones to be reused as bench seating in landscaped areas.</i>	N/A
The design, form and layout have been simplified <i>Examples: Size and position of window and door openings to suit whole brick/block/plasterboard dimensions. Room sizes to match plasterboard dimensions, identical grids to allow for formwork reuse. Designing out basements, raising formation levels, soil stabilisation, displacement piling or mini piles.</i>	N/A
Components have been designed for off-site manufacture <i>Examples: Precast edge/ground beams/manholes. Prefabricated toilet/bathroom/kitchen pods, prefabricated service runs/risers, pre-packaged plant rooms, etc.</i>	Y
Designed as a process of assembly rather than construction	Y
Wet trades have been designed out	N/A
Materials known to contain a high recycled content have been specified	N/A
Materials and products are suitable for their application <i>Example: Floor tiles and wall finishes are not under/over specified.</i>	N/A
Locally sourced and/or rapidly renewable materials have been specified <i>Example: Cork, linoleum and Grown in Britain (GiB) timber.</i>	N/A
Using products with lower embodied water and/or carbon	N/A
Low energy light fittings have been specified	N/A
Low/zero carbon technologies have been specified	N/A
High specification thermal insulation will be used	N/A
Thermal modelling undertaken	N/A
Effective ventilation systems used to reduce energy loss	N/A
User control is carefully considered to ensure a healthy environment as well as allowing efficient energy use	N/A
Rain/Grey/black water harvesting has been specified	N/A
Low flow rate fittings have been specified	N/A
Design adaptable for a variety of purposes during its life span	N/A
Building elements and components can be maintained, upgraded or replaced without creating waste	N/A
Design incorporates reusable/recyclable components and materials	N/A
Building elements/components/materials easily disassembled	N/A

Schedule IV - Additional Schedules

List of Annex – all held with Annex Folder

Annex A	SHEMS-STD-GR-067 Environmental Aspect and Impact Assessment Standard
Annex B	SHEMS-REG-CON-014 Aspects and Impacts Register
Annex C	Wethersfield Outline CEMP
Annex D	SHEMS-GUI-GR-063i Managing Concrete Wash Water
Annex E	Wethersfield Preliminary Ecological Appraisal Report (PEAR)
Annex F	SHEMS-MST-CON-0086 Tree and Hedgerow
Annex G	Wethersfield Tree Survey
Annex H	SHEMS-STD-GR-065 Waste Management
Annex I	SHEMS-STD-GR-063 Pollution and Nuisance
Annex J	SHEMS-STD-GR-061 - Soil Management and Contaminated Land
Annex K	SHEMS-STD-GR-051 COSHH - Control of substances hazardous to health
Annex L	SHEM-MST-CON-0080 Oil and Fuel Storage – Above Ground
Annex M	SHEMS-GUI-GR-063g Chemical and Paint Storage
Annex N	SHEMS-STD-GR-020 Fire Management
Annex O	SHEMS-STD-GR-013 Major Incident Response Plan
Annex P	SHEMS-STD-GR-011 Incident Reporting and Investigation
Annex Q	SHEMS-MST-GR-0050 Demolition - Mobile rock crushing and-or screening operations
Annex R	GUI-GR-027 Strategy for Responsible Procurement
Annex S	SHEMS-MST-GR-0007 Timber Purchasing
Annex T	SHEMS-MST-CON-0081 Site Accommodation Welfare Units
Annex U	Construction Phase Plan
Annex V	SHEMS-GUI-GR-062d Invasive Terrestrial Plants
Annex W	SHEMS-GUI-GR-062f Reptile and Amphibians
Annex X	SHEMS-STD-GR-060 Archaeology and Heritage
Annex Y	Site Induction
Annex Z	POL-GR-001 Health, Safety and Wellbeing policy
Annex AA	POL-GR-021 Environmental Policy