Environmental Management Plan

Incorporating Aspect and Impact control Register

Project:	**Wombwell - Asbstos Removal and Demolition**
Contract No. / Folio	**N2701**
Description:	**Asbestos removal and demolition of existing school - Wombwell.**
Date Started:	**20th September 2012**
Next review:	**Nov-12**
Prepared By :	**Nathan Whiteman / Ed Lazenby**
Project Leader :	**Tim Brown**

This plan will be updated at least every 3 months

Filing System

The following list covers the contents of the Project Environmental Management File

1 Environmental Policy (for communication on site)

2 i. Initial Project Assessment
ii. Aspect & Impact control Register
iii. Objectives and targets
iv. Consents Licences and permits.
v. List of Environmental surveys
vi. Monitoring Requirements

3 Change to Environmental Emergency Arrangements (anything not included in Fire and Emergency Plan)

4 Site Waste Management Plan (and associated records e.g. waste transfer records, consignment notes etc.)

5 Environmental Instructions / Operational Controls (anything not included in method statements)

6 Calibration certificates (noise/vibration/air quality/chemical testing monitoring equipment)

7 Records of consultations with environmental regulators Icluding EA and Local Authority

8 Records of Environmental Breaches, NCR's, Incidents and Complaints (Where extra reports and documents are needed in addition to Impact)

9 Records of Environmental Inductions, Briefings and Toolbox talks (specific environmental inductions and briefings not included in site induction)

10 Environmental monitoring and inspection records

Aspects and Impacts Control Register Version Control

Revision Number	Date	Prepared By	Summary of Amendments Made	Approved By: (Project Leader)
1.0	20.09.12	E Lazenby	Original updated to suit Wombwell demolition	

Guidance Notes for use of this document - please read before using any of the templates.

NB - Do NOT alter the formats, font's, or delete rows/columns or change print areas on any of the worksheets within this document unless you are proficient and confident using Excel. Each worksheet has been formatted to avoid the user having to make adjustments for printing etc. and only require minimal input with regards to changes or additions to text boxes.

Spreadsheet Tab and Guidance Notes for Completion	Frequency of Review/Amendments
INITIAL PROJECT ASSESSMENT	Once - pre-construction/bid
Consider which operations (left hand column) are applicable to the project then	
Tick which aspects (top row) must be considered for a particular operation.	
Use this form as an aide-memoir for the completion of the Environmental Aspects & Impacts Register	
VERSION CONTROL	As & when changes have been made to the Aspects and Impacts Register
Update after you have completed your first draft of the Aspects and Impacts Register - first revision number will be 1 or 1.0 and the amendments made in the comment column will be - "Initial Draft Aspects and Impacts Register" and either "Bid Stage" or "Pre-Construction stage".	
Once the project team are on site, the Aspects and Impacts Register (AIR) will need to be updated again to assign staff with specific responsibilities and/or to review the Significant Risk status. This will be version 2 or 2.0 and the amendments made will be for example "responsibilities assigned" and/or "risks reviewed/updated"	
The Version Control should reflect the 3 monthly updates of the Aspects and Impacts required as a mandatory action. Ensure the version number and date are added and the comments reflect the changes made, however minor / small.	
If changes are made in between the quarterly reviews, (for example if members of staff change) amend the version number, date and comments as required.	
If no changes are made to the AIR, the version number can stay the same, but the date of review (quarterly) must be completed and in the comment column - "no changes required"	
ASPECTS AND IMPACTS REGISTER	Every 3 months as a minimum
Using the Initial Project Assessment as a guide, identify every line of the generic Aspects and Impacts Register you believe will be applicable to your project	
To rationalise the Aspects and Impacts Register to suit your project: use the **FILTER** option using the "SELECT" column. (You could HIDE non-applicable rows but never delete)	
Using the **filter** option: Type 'a' in column A titled "SELECT" , against the site specific control measure you wish to highlight. This will show as a tick in that column (several examples exist within this template already). When you have finished 'ticking' the applicable lines, go to the headings where you will see drop down arrows and choose the filter by "a". This will produce a spreadsheet only showing the lines you have chosen and will maintain the descriptions in columns D - Issue, E - Aspects and F - Impacts	
Using the hide option: hiding rows (never delete in case the row becomes relevant during a project) risks losing the contents of the heading columns as option above, so care will need to be taken and re-formatting/pasting will be required.	
Once the applicable rows/mitigation measures have been selected, you need to add the Risk Significance High (H) / Medium (M) / Low (L) and assign members of the project team to have responsibility for monitoring or ensuring that these measures are put / kept in place.	

Extra/ Blank lines have been inserted throughout the document, instead of inserting more rows if you need to add something specific for your project, please ensure you use the rows provided. (You could also type over existing lines that will never apply to your project.) **NEVER** delete rows. Because you will **FILTER**, the blank rows will just disappear from your project specific AIR.	
Review and update (as necessary) the version number, date, risk significance, staff responsibilities and required mitigation measures within the Aspects and Impacts Register on a quarterly basis. Ensure Version Control is amended to reflect the review and/or changes.	
OBJECTIVES	Monthly or every 3 months depending on type of objective and duration of project

Corporate environmental targets are available via this link.

The CR Challenge objectives will be included on the template you receive or when they have changed, they will be sent to your Environment Co-ordinator to amend within this document.	
Replace or amend the example objectives within the template to suit your project. Do try to push the environmental envelope where possible and show a little imagination.	
Site Objectives should be realistic and manageable given the time constraints on a project. Complete all columns and review on a regular basis to avoid having to pull lots of information together in one go potentially at the end of a project when it is too late to do anything about missed targets.	
Do not set too many objectives unless you have the resources to follow through on them. More than two but less than six is recommended for sites with the Environment Co-ordinator as a 'secondary' role	
LICENCES AND PERMITS	Every 3 months as a minimum
List any and all permits or licences relevant to the project.	
A regular review of permits/licences is required to ensure none have expired - the table at the bottom has been provided as a monitoring check. Simple tick / "X" the boxes each month as you have checked expiry	
SURVEYS AND REVIEWS	At start up
The surveys and reviews checklist provides a useful list of Environmental surveys, documents and records needed at the start of a project.	
Complete the checklist when doing the initial project assessment to ensure all areas are covered.	
If an item is not applicable mark with n/a	
MONITORING REQUIREMENTS	Every 3 months as a minimum
A list of the various inspections/reporting required	
Red crosses are mandatory requirements although SWMP may not be required on some projects.	

INITIAL PROJECT ASSESSMENT

Completed By: _____ **Date:** 20th September 2012

	CO2 Emissions (Fuel & Energy)	**Water** (incl.risk of spillages)	**Waste** (refer to Site Waste Management Plan)	**Air / Dust**	**Ecology / Biodiversity** (refer to Ecological survey)	**Noise**	**Vibration**	**Materials / Responsible Sourcing**	**Transport / Indirect**	**Contaminated Land**	**Light Pollution**	**Archaeology**	**Community**	**Existing Structures**
Design (SWMP, BREEAM, SUDS etc.)														
Planning Conditions - T&C														
Site Set Up (Offices, welfare, storage)			X											
Site Clearance	X	X	X	X	X	X	X							
Demolition	X		X	X		X	X		X				X	
Groundworks	X	X	X	X		X	X		X				X	
Piling														
Substructure														
Superstructure														
Envelope														
Drainage														
Glazing														
Roofing														
M&E incl. plumbing														
Finishings														
Hard Landscaping														
Soft Landscaping														
Commissioning & Testing														

Guidance for Completion

1. Consider which operations (left hand column) are applicable to the project then
2. Tick which aspects (top row) must be considered for a particular operation.
3. Use this form as an aide-memoir for the completion of the Environmental Aspects & Impacts Register on next tab

Environmental Impacts Aspects Control Register

Revision (corresponds to Version Control):	
Date of Last Review:	

Project / Location:	**Wombwell - Asbstos Removal and Demolition**	Prepared by: **Nathan Whiteman / Edward Lazenby** Position: **Site Environmental Co - ordinator**	Approved by: Position:

Issue	**Aspects** Consider resources, waste and emissions to air, water, and land	**Impact(s)** Consider normal and emergency conditions	**Significant** **H/M/L**	**Site Specific Control Measures** Include Monitoring Arrangements	**References** Legislation / LOR Documents / Advisory Bodies	**Action by** Named Individual for Significant Aspects
CO2	Energy use in Site accommodation incl, hot water, lighting, electrical equipment	CO2 emissions leading to climate change			Climate Change Levy - see also Laing O'Rourke Site Accommodation Specification 2008 Laing O'Rourke Reducing Operational CO2 Emissions Guidance Document	
				Best practice to be followed by staff in minimising energy use in the office (details to be communicated at Environment Launch, by posters, and site induction)		ALL Office staff to follow good practice.
				Set all printers/photocopiers to go into energy saving mode when not in use and switch off overnight		Environment Co-ordinator
				Encourage good practice in use of heaters (and air conditioners if included). If these need to be on, windows should be kept closed		Environment Co-ordinator
				Use of water heater for hot drinks, rather than kettle, fitted with timer switch to avoid heating water out of hours		All staff
CO2	Energy use on site (Plant and Lighting) during site clearance, demolition and groundworks	CO2 emissions leading to climate change, and air pollution		Temporary electrics contract spec. to include energy efficient features and ensure bespoke switching controls to avoid lighting/heating areas unnecessarily	Climate Change Levy, LOR good practice guidance liaising with power company (EDF) on securing grid connection	Procurement Mgr
				Ensure emergency lights and back-up power are on separate circuits from other lighting	Temporary electrics standard scope of works	Project Leader
				Ensure where generators are required these are appropriately sized. to increase average operating efficiency	Laing O'Rourke Reducing Operational CO2 Emissions Guidance Document	Project Leader
				Signage, Toolbox talks and site induction to encourage switching off.		Construction Manager
				Monitor CO2 emissions based on meter readings and diesel consumption, (**BREEAM** Man3 and **DFMA KPIs** requirement) and display material high in profile location to reinforce good practice in reducing emissions; Record data on Impact Plus		Environment Co-ordinator
				Specify electrical equipment in lieu of diesel wherever possible		Procurement Mgr
				Correct design and placement to avoid repetition of activity (groundworks)	Toolbox Talk envogu40 CO2	Site Engineers

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				Regular maintenance/servicing of plant;	Impact Plus Environment Tab **DfMA KPI Monitoring**	Nominated foremen
				Appropriate signage to re-inforce activity	Laing O'Rourke Reducing Operational CO2 Emissions Guidance Document	Environmental Co-ordinator
				Use of fuel sheets to record fuel usage and plant efficiency		Project Leader to allocate person
				Do not use plant as site taxi		Plant Operators/staff
				Avoid free issue of fuel to subcontractors		Construction Manager
				Ensure task lighting brought by sub-contractors avoids use of tungsten bulbs		Project Leader

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CO2	Vehicle Use - staff / visitor transport to and from site	CO2 emissions leading to climate change		Use of teleconferencing (see iGATE) and videoconferencing to reduce the need for journeys to meetings off site	Climate Change Levy	All Staff
CO2, NOISE, AIR POLLUTION	Vehicle use - deliveries	CO2 emissions leading to climate change, local traffic congestion		Implement Traffic Management Plan identifying routes / times /restrictions -based on local circumstances (e.g. schools, and advice from local authority and emergency services)	Climate Change Levy New Roads and Street works Act 1991 (if involved in work on public highway)	Construction Manager
				Communicate traffic management plan to suppliers and sub-contractors		Construction Manager
				Vehicles to have full loads;		Commercial Mgr/Construction Mgr
				Consolidate orders to ensure fewer deliveries;		All staff / Construction Manager
				Accurate forecasting of load size and choice of appropriate delivery vehicles to be required	Laing O'Rourke Reducing Operational CO2 Emissions Guidance Document	Commercial Mgr/Project Engineers
				Engines switched off whilst waiting/unloading- reinforced by Gateman/appropriate signage		Gateman
				Logistics strategy, scheduling of deliveries to avoid queuing		Construction Manager
WATER	Water: Foul Water and Sewage discharges	Contamination of existing land, possible contamination of existing watercourses through surface water drains. Contamination of rivers.		Ensure proper connection of site accommodation to foul water system;	Water Industry Act 1991 **SMS:** envogu42 – Protection of Natural Water Resources; envogu25 – TBT Water Discharges PPG4 - Disposal of sewage where no foul drains	Project Leader
WATER	Storage and fuelling	Risks of spillage, ground contamination and run-off into water systems		Storage to be in marked containers, in good condition, bunded and/or on drip trays/plant nappies, well away from drains (10m+). All fill pipes, draw pipes and sigh gauges to be enclosed within the bund. Tank Vent pipes should be directed down into the bund. Bunds should be 110% of volume of single drums or 25% of total volume of multiple	Water Resources Act 1991 Control of Pollution (Oil Storage) England) Regulations 2001 **SMS**:Appendix 17B – Fire & Emergency Plan - envogu06 – Env. Incident Control - envogu07 – Pollution Prevention - envogu41 – Oil Storage - envogu16 – TBT Spill -Prevention & Response envogu17 – TBT Oil storage envogu19 – TBT Using Drip Trays and external guidance PPG Guides PPG1, PPG2, PPG5, PPG7, PPG 8 and PPG 13. Also see CIRIA Guidance documents C532 (Water Pollution) and C649	Project Leader/ Construction Manager
				Drip trays or plant nappies to be used when transferring liquids		Project Leader/ Construction Manager
				Bunds/ bowsers sited to be checked regularly to avoid spillage – (preferably on impermeable surface).		Project Leader/ Construction Manager
				Spill kits available at appropriate locations - signage, directions, plan to indicate locations		Project Leader/ Construction Manager
				Bunded hazardous waste bin for spill kits from spillages and for drip tray contents		Project Leader/ Construction Manager

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				Staff trained in correct procedures (Toolbox talks/induction and supervisor reinforcement)	(Control of Water), BREEAM Credit Issue Man3 Construction Site Impacts	Project Leader/ Construction Manager
				Emergency response plan covering spillages, communicated to relevant staff.		Project Leader
WATER	Water demand in Site Accommodation	Pressure on existing supply, low flow - depletion of water resources		Staff trained to report and repair leaks - communicated at Induction and Environment Launch, reinforce with appropriate signage	Laing O'Rourke Site accommodation specification 2008 BREEAM Credit Issue Man3 Construction Site Impacts	Environment Co-ordinator, All office-based staff
				Ensure extra water demand (e.g. wheel wash or other site water) does not affect pressure to taps, which can cause push taps to turn off too slowly		Project Leader
				Sensible use of water for washing cups etc. - mention at Environment Launch staff, signage in kitchens		Environment Co-ordinator

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WATER	Water demand on site - from mixing concrete, concrete wash out, damping down, wheel washing	Pressure on existing supply, low flow - depletion of water resources		Ensure water hoses kept out of vehicle paths to avoid breakage & leaks	Water Resources Act 1981 Water Industry Act 1991 Control of Pollution (oil storage) regulations 2001 envogu42 – Protection of Natural Water Resources - TBT Water Discharges - TBT Working with Concrete - TBT Pumping and over-pumping and external guidance PPG Guides PPG6 6, . CIRIA Guidance documents C532 (Water Pollution) and C649 (Control of Water), EIN 2012, EA Regulatory Positions Statement, BREEAM Credit Issue Man3 Construction Site Impacts **DfMA KPI monitoring**	Construction Manager
				Hoses to be trigger hoses		Construction Manager
				Logistics/access strategy to minimise need for wash down (wheelwashes etc,)		Project Leader/Logistics Mgr
				Check valves and water points regularly		Construction Manager
				Staff trained to report and repair leaks - reinforce with appropriate signage		Induction and TBT providers, Environment Co-ordinator
				Monitor water consumption, record and display against industry benchmarks, display performance in high profile location (BREEAM Man3 and **DfMA KPIs** requirement) and display material alongside to reinforce good practice in reducing consumption		Environment Co-ordinator
WATER/ CONTAMINATED LAND	Silt	Silt contamination of river and pollution / disruption of wildlife and habitats. Prosecution of individuals or company may result from contamination of watercourses and / or working adjacent to a watercourse without consent. Inadequate control of dewatering operations behind sheet piling.			References Legislation / LOR Documents Water Resources Act 1991 **SMS:** envogu42 – Protection of Natural Water Resources; envogu25 – TBT Water Discharges; envogu27 – TBT Working with Concrete; envogu39 – TBT Pumping and over-pumping	

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WATER	Dewatering operations & Concrete washout	Silting contamination of sewage system or (more seriously) river and pollution / disruption of wildlife and habitats. Prosecution of individuals or company may result from contamination of watercourses and / or working adjacent to a watercourse without consent.			Water Resources Act 1991 - **SMS:** envogu42 – Protection of Natural Water Resources - envogu25 – TBT Water Discharges - envogu27 – TBT Working with Concrete - envogu39 – TBT Pumping and over-pumping and external guidance PPG Guides PPG1, PPG2, PPG5, PPG7, PPG 8 and PPG 13. CIRIA Guidance documentsC532 (Water Pollution) and C649 (Control of Water), BREEAM Credit Issue Man3 Construction Site Impacts	
WATER	Application of chemical treatments and finishes leading	Poisoning of public and wildlife by direct exposure, contamination of water supply,			Water Resources Act 1991 **SMS:** Appendix 17B – Fire & Emergency Plan -envogu06 – Env. Incident Control - envogu07 – Pollution Prevention - envogu41 – Oil Storage -envogu16 – TBT Spill - Prevention & Response envogu19 – TBT Using Drip Trays	

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WASTE	Waste production during site set up, site clearance, demolition and groundworks	Environmental (and cost) impacts of waste management - landfill, transport, recycling processes and their impacts		Procure suitably licensed waste contractor / waste management company to sort, recycle, re-use waste as appropriate (on site or off site)	Environmental Protection Act 1990 Part II - Site Waste Management Plan Regulations 2008 - Environmental Protection (Duty of Care) Regulations 1991 - Controlled Waste (Registration of Carriers & Seizure of Vehicles) Regulations 1991 Environmental Permitting (England and Wales) Regulations 2007 - List of Waste (England) Regulations 2005, ***SMS:*** SWMPGU00 Site Waste Management Plan - Guidance Notes for Completion; envogu08 – List of Waste Codes; envogu10 – limiting criteria for disposal of waste to landfill sites; envogu23 – TBT Managing Waste on site; envogu24 – TBT Waste disposal and duty of care; **BREEAM** credit issue Wst3; **DfMA KPI Monitoring**	Project Leader
				Obtain copies of all waste related licences/documentation from waste contractor/waste management company to landfill sites and end-user of recycled/reprocessed/re-used materials.		Environmental Co-ordinator
WASTE	Hazardous Waste: Storage and disposal.	Increased landfill requirements and loss of landfill space; contamination of land and water		Maintain Hazardous Waste Log recording all hazardous products being collected. Also record on Waste Tracker)	Environmental Protection Act 1990 Part II - Site Waste Management Plan Regulations 2008 Environmental Protection (Duty of Care) Regulations 1991 Controlled Waste (Registration of Carriers & Seizure of Vehicles) Regulations 1991 - Environmental Permitting (England and Wales) Regulations 2007 - List of Waste (England) - Regulations 2005 - Hazardous Waste (England and Wales) Regulations 2005 - ***SMS:*** envogu08 – List of Waste Codes - envogu09 – Hazardous Waste Threshold Concentration Limits - envogu10 – limiting criteria for disposal of waste to landfill sites - envogu23– TBT - Managing Waste on site - envogu24 – TBT Waste disposal and duty of care, **BREEAM** credit issue Wst3	Project Leader to allocate person
				Use suitably licensed waste contractor to remove and dispose of hazardous waste and obtain licence and documentation for them and disposal sites as appropriate.		Project Leader
				Record waste arising's on Waste Tracker (Also a BREEAM Credit issue Wst3 Requirement)		Project Leader to allocate person

Environmental Impacts Aspects Control Register

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CONTAMINATED LAND	Potential disturbance of existing contaminated land.	Variety of possible health and ecological impacts from spread of contamination		Ensure land is characterised as thoroughly as necessary in advance, through professional geotechnical report, with recommendations on further action.	Environment Act 1995, Contaminated Land Regulations 2006, Control of pesticide Regulations 1986, Wildlife and Countryside Act 1981, EPA 1990, Hazardous Waste Regulations 2005 **SMS:** Envoclpc00 – dealing with brownfield sites and contaminated land; envogu26 – TBT Contaminated Land	Project Leader
				As necessary carry out any remediation works (Also BREEAM requirement - credit issue LE2)		Project Leader
				Follow all recommendations of geotechnical report, and integrate into method statements		Project Leader/ Construction Manager
LAND USE	Soil	Damage and loss of topsoil and subsoil		Develop Materials management plan as part of SWMP	Best Practice	Construction Manager
				Ensure topsoil removed from a site is re-located and re-used on site or off-site		Project Leader
				Explore avenues for disposal which are not landfill, e.g. capping, re-use on site for landscaping.		Project Leader
AIR / DUST	Dust (General) - Caused by movement of plant / vehicles and deliveries.	Disturbance of public (and particularly nearby neighbours such as school, shop and residents). Disturbance / interference with river and heathland wildlife and ecology.		Visual monitoring of dust levels on site and from transport leaving site. Damp down when required. Use sheets on skips likely to cause dust.	Environmental Protection Act 1990 Part III - Water Resources Act 1991 - **SMS**: - envogu43 – Air Quality - envogu20 – TBT Avoiding and Managing Dust Ref Guides External guidance docs. BRE Control of Dust from Construction and Demolition Activities	Demolition/Construction Manager
				Monitor debris on local carriageways and maintain with road sweep/wheel wash as appropriate;		Demolition/Construction Manager
				Design out dust through design of vehicle access, dust seal concrete when poured, screed (where appropriate)		Demolition/Construction Manager
				Communicate good practice to site operatives (induction, Toolbox Talks and Daily Activity Briefings as needed)		Induction provider, TBT giver, Project Engineers
				Consider temporary screening, as well as dust suppression, if appropriate.		Demolition/Construction Manager
				Maintain a water supply on site for the duration of the works for dampening down friable materials		Demolition/Construction Manager
				Temporary roads to be dampened down as and when necessary. Restrict vehicle speeds whilst on site.		Demolition/Construction Manager
				Stock piles of friable materials shall be located away from residential properties and covered/dampened down as and when necessary		Demolition/Construction Manager
AIR / DUST	Storage of materials/aggregates with high fines content	Contamination of watercourses, smothering of vegetation. Also loss of visual amenity.		As far as possible locate stockpiles away from boundaries with residential or office buildings	Environmental Protection Act 1990 Part III - Water Resources Act 1991 - **SMS**: envogu43 – Air Quality;envogu20 – TBT Avoiding	Construction Manager

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	cement.				and Managing Dust Ref Guides External guidance docs. BRE Control of Dust from Construction and Demolition Activities	
AIR / DUST	Wet applications such as mortar, plaster, render etc. The above dries out to dust especially on scaffolding.	Contamination of watercourses, smothering of vegetation. Also loss of visual amenity.			Environmental Protection Act 1990 Part III - Water Resources Act 1991; **SMS**: envogu43 – Air Quality; envogu20 – TBT Avoiding and Managing Dust; External guidance docs. BRE Control of Dust from Construction and Demolition Activities	
AIR / DUST	Dust: - Caused by inadequate control of batching plant equipment leading to cement / aggregate dust emissions. Also blowing out of shutters leading to dust emissions.	Disturbance to neighbours, possible contamination of drains and to river leading to damage / disruption of wildlife and habitats.			Environmental Protection Act 1990 Part III - Water Resources Act 1991 - **SMS**: - envogu43 – Air Quality - envogu20 – TBT Avoiding and Managing Dust Ref Guides External guidance docs. BRE Control of Dust from Construction and Demolition Activities	
AIR / DUST	Dust caused when demolishing existing buildings	Disturbance to neighbours, possible contamination of drains and to river leading to damage / disruption of wildlife and habitats. Danger to work force through inhalation.			Environmental Protection Act 1990 Part III - Water Resources Act 1991 - SMS: - envogu43 – Air Quality - envogu20 – TBT Avoiding and Managing Dust Ref Guides External guidance docs. BRE Control of Dust from Construction and Demolition Activities	

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NOISE	Noise-producing activities	Disturbance of public (and particularly nearby neighbours) leading to statutory nuisance.		Design out noise as much as possible (including in demolition), avoid percussive techniques if alternatives	Environmental Protection Act 1990 Part III - Control of Pollution Act Sections 60/61 - **SMS:** envogu44 – Noise & Vibration - envogu21 TBT Noise and Vibration Considerate Constructors Scheme	Project Leader
				Use tight fitting, sealed acoustic enclosures on noisy equipment when possible (e.g. hoods and doors on generators, jackets on pneumatic drills)		Construction Manager
				Liaise/communicate with local residents and businesses to keep them informed of particular/ any out of the ordinary noise generating activities - record any positive communications or complaints on Impact Plus or as per Business Unit requirement as appropriate		Project Leader
				Maximise efficiency of deliveries / cartaway by arranging full loads		Procurement/ Construction Manager
				Co-ordinate deliveries to minimise waiting times		Construction Manager
				Instruct that engines to be turned off while waiting		Construction Mgr/Gateman
				Good maintenance of plant and vehicles		nominated foreman
				Operations in accordance with planning reqts, usually 0800-1800 Mon-Fri, 0800-1300 Sat. 2hrs on, 2hrs off for noisy activities in urban areas		Construction Manager
				For necessary out of hours works, optimise sequencing to minimise duration, and inform neighbours in advance.		Construction Manager
				Avoid percussive techniques if alternatives are available, e.g. Elliot method, hydraulic key formation		Project Leader
				Noise levels for plant to be provided **TBC - Ed Lazenby**		
VIBRATION	All vibration-producing activities	Health impacts, risks to existing structures		Review site in advance for vibration risks, based on pipe runs, proximity of existing buildings.	Environmental Protection Act 1990 Part III - Control of Pollution Act Sections 60/61 - **SMS:** envogu44 – Noise & Vibration - envogu21 TBT Noise and Vibration	Project Leader/ Construction Manager
				If risk looks significant, commission a specialist study to examine risk and make recommendations to be followed.		Project Leader
				Design-out vibration as much as possible, and fit anti-vibration mountings/dampers if needed		Construction Manager
				Use non-percussive techniques when possible		Construction Manager

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TRAFFIC		Dust / dirt deposited by transportation vehicles and plant travelling to/from site or around site perimeter to alternative access points		Wheel wash facilities and/or 'clean routes/areas' for non-site vehicles.	New Roads and Street Works Act 1991 (if involved in works on public highway)	Project Leader
				Plan site layout to minimise site traffic travelling outside of site boundary and minimise movement not on hardstanding .		Project Leader
				Cover skips/lorry loads which could cause deposits or dust		Construction Manager
				Inform local residents or business when expecting special / out of the ordinary deliveries. Record positive actions or complaints on Impact plus or as per Business unit requirement as appropriate		Project Leader
LIGHT, CO2	Light emitting from temporary site lighting systems.	Disturbance of public and wildlife. Stress and loss of sleep. CO2 emissions		Consider location /fit light shields if needed	Environmental Protection Act 1990 Part III - Control of Pollution Act Sections 60/61 Temporary Electrics Standard Scope of Works	Construction Manager
				Lighting to be focussed downwards/ inwards to minimise impact on residents		Procurement Mgr/ Construction Manager
				Specify for energy efficient lighting		Procurement Mgr
EXISTING STRUCTURES	Vehicle and plant movement or temporary works.	Exceeding ground bearing capacities causing Structural cracking or failure and landslips.		Assess and identify potential risks in advance and plan works accordingly		Project Leader
				Avoid routing plant in area / calculate MBC and restrict loads / consider improving strata or temporary supports.		Project Leader
EXISTING STRUCTURES	Exposure of impermeable strata from site strip or regrading of land, leading to increased surface water.	Risks of water pollution and excess run-off		Minimise heap heights; provide temporary means of disposal / storage of clean SW.	Wildlife and Countryside Act 1981 - Water Resources Act 1991 **SMS:** envogu47 – Protected Species; envogu48 – Ecology Year Planner; envogu29 TBT Ecology and wildlife; envogu30 – TBT protected Species	Construction Manager
CONTAMINATED LAND	Disposal of ground water.	Silt in sewage system. Health and ecological risks from airborne exposure, contamination of watercourses and ground.			Environmental Protection Act Part IIA Contaminated Land Regulations 2006 **SMS:** Envoclpc00 – dealing with brownfield sites and contaminated land; envogu26 – TBT Contaminated Land	

Environmental Impacts Aspects Control Register

Issue	Aspects Consider resources, waste and emissions to air, water, and land	Impact(s) Consider normal and emergency conditions	Significant H/M/L	Site Specific Control Measures Include Monitoring Arrangements	References Legislation / LOR Documents / Advisory Bodies	Action by Named Individual for Significant Aspects
ECOLOGY	Heavy plant and vehicle movement, and storage of heavy products on the ground.	Soil compaction, affecting future vegetation growth and agricultural use		Prevention; use defined haulage routes;		Construction Manager
ECOLOGY (Flora and Fauna)	All activities that could disturb habitats of protected species or birds during nesting season.	Disturbance or death of protected species and their habitats. Prosecution of individuals or company may result from disturbance of habitats or unlawful killing of wildlife.		Ensure that an ecology survey is undertaken prior to works being carried out and licenses / mitigation measures put in place	Wildlife and Countryside Act 1981 - Water Resources Act 1991 **SMS: -** envogu47 – Protected Species - envogu48 – Ecology Year Planner - envogu29 TBT Ecology and wildlife - envogu30 – TBT protected Species BREEAM Credits Issues LE3/LE4/LE5 LOR Biodiversity Guidance	Project Leader
				Ensure any additional surveys arising from ecology survey or requested by Client are undertaken		Project Leader
ECOLOGY (Flora and Fauna)	Excavation and vehicle movements	Potential damage to trees and roots		Site survey to identify trees to be retained, and ensure there are no Tree Preservation Order issues	Wildlife and Countryside Act 1981 - Water Resources Act 1991 **SMS: -** envogu47 – Protected Species - envogu48 – Ecology Year Planner - envogu29 TBT Ecology and wildlife - envogu30 – TBT protected Species Conservation Regulations 1994 LOR Biodiversity Guidance	Construction Manager
				Liaise with Arboriculturalist regarding suitable protection/work methods and extent required. As rule of thumb, protection will be to width of canopy or half the height, whichever is greater.		Construction Manager
				Ensure any hedgerow or tree protection is properly maintained and its existence communicated through inductions and appropriate display materials		Environmental Co-ordinator

Environmental Impacts Aspects Control Register

Issue	Aspects Consider resources, waste and emissions to air, water, and land	Impact(s) Consider normal and emergency conditions	Significant H/M/L	Site Specific Control Measures Include Monitoring Arrangements	References Legislation / LOR Documents / Advisory Bodies	Action by Named Individual for Significant Aspects
ECOLOGY (Flora and Fauna)	New or improved habitats	New or extended habitats			Wildlife and Countryside Act 1981 - Water Resources Act 1991 **SMS:** envogu47 – Protected Species; envogu48 – Ecology Year Planner; envogu29 TBT Ecology and wildlife; envogu30 – TBT protected Species Conservation Regulations 1994 Project Ecology report and BREEAM assessor manual if relevant LOR Biodiversity Guidance	
ARCHAEOLOGY	Disturbance of site of archaeological interest	Loss of historic information.				
MATERIAL / RESPONSIBLE SOURCING	Cleaning and Welfare Products	Energy intensity of production (and water consumption); potentially toxic substances introduced into food chain; contamination of water supply; contamination of sediments		Use of Fragile Earth products - train welfare attendants in proper use.	Water Resources Act 1991 **SMS:** envogu42 – Protection of Natural Water Resources - envogu25 – TBT Water Discharges ; SWMP / CSR Challenge	Commercial Manager/QS or Office Manager
				If paper towels must be used, use only those with 100% recycled content		Office Manager
MATERIAL / RESPONSIBLE SOURCING	Office Resources - paper/toner/all stationery	Energy intensity of production (and water consumption)		Use paper which is 100% recycled or 70%+ recycled and remainder from sustainably managed forests and stationery and toner products that contain highest percentage of recycled material	CR Challenge	Office Manager
				Order recycled stationery products where financially equal to standard products		Office Manager

Environmental Impacts Aspects Control Register

Issue	Aspects Consider resources, waste and emissions to air, water, and land	Impact(s) Consider normal and emergency conditions	Significant H/M/L	Site Specific Control Measures Include Monitoring Arrangements	References Legislation / LOR Documents / Advisory Bodies	Action by Named Individual for Significant Aspects
MATERIAL / RESPONSIBLE SOURCING	General site materials	Energy intensity of production (and water consumption); using up of natural resources; release/spills/leaching can cause imbalance in water/ground PH		Magic ice melt in winter instead of Rock Salt		Construction Manager
				Sustainable concrete use		Construction Manager
				FSC / PEFC/ CSA/ SFI with CoC or re-used/recycled (certified) Timber 100% legally sourced - Also BREEAM requirement (Man3 and Mat5)		Procurement Mgr/ Office Manager
CO2, WATER and TRANSPORT	Building Operation	CO2 emissions, impacts of transport, impacts of water resource use			BREEAM Assessor's manual	
TRAINING / COMMUNICATION to ensure environmental good practice and requirements are integral parts of all project activity (by management, staff, operatives, sub-contractors)	All	All		Environment Plan	This document, SMS 6, Business Unit Environment Team support	Project Leader/ Env Co-ordinator
				Appoint Environment Co-ordinator		Env Co-ordinator
				Project progress meetings agenda item		Project Leader
				Sub-contract meetings agenda item		Project Engineer
				Toolbox talks 2 per month on environmental issues		Construction Manager
				Site induction incorporating environmental key issues		Induction provider
				Management inspections, including those for monthly reporting of progress and priorities to head office		All, Construction Mgr
				6-monthly audits and other support from head office environment team		Head Office Environment Team
ALL	Environmental Performance of building, with respect to operations and materials	All impacts of building over its lifetime			BREEAM pre-assessment	
ALL	DfMA Indicators	Estimate vs. actual performance of building incorporating DfMA elements			DfMA KPI Spreadsheet - Eddy Taylor, Group HSE	

Environmental Impacts Aspects Control Register

Issue	Aspects Consider resources, waste and emissions to air, water, and land	Impact(s) Consider normal and emergency conditions	Significant H/M/L	Site Specific Control Measures Include Monitoring Arrangements	References Legislation / LOR Documents / Advisory Bodies	Action by Named Individual for Significant Aspects
EXISTING STRUCTURES	?	?	?	?	?	?
EXISTING STRUCTURES	?	?	?	?	?	?
EXISTING STRUCTURES	?	?	?	?	?	?

Schedule of Consents and Licences

Consent	Administering Authority	Location	Consent No.	Date Obtained	Expiry Date	Review Date
Examples in blue below to be removed and replaced with project specific permits/permissions etc.						
Foul Water Permit	*Thames Water*		*Letter Dated 24/08/09*	*24/08/2009*	*24/02/2011*	*07/01/2011*
Discharge Consent	*Essex and Suffolk Water*		*Letter dated 19/04/08*	*19/04/2008*	*19/10/2008*	*01/09/2008*
Hazardous Waste	*Environment Agency*		*NPG1234*	*15/11/2009*	*14/11/2010*	*01/10/2010*
Hoarding Licence						
Footpath Closure						
Archaeology	*London Institute*		*Letter dated 15/04/09*	*15/04/2009*	*15/10/2009*	*01/10/2009*
Noise						
Tree Protection Orders						
Trade effluent						
Crusher Permit	*Dagenham*		*ACC/3456772*			
Waste Recycling Solutions	*?*	*Barnsley*	*?*	*?*	*?*	*?*

Review checklist - Please tick when a review has been undertaken. This should be ticked monthly once reviewed, even if there is nothing to report/update.

Year	**2011**											
Month	January	February	March	April	May	June	July	August	September	October	November	December
Checked?												
Year	**2012**											
Month	January	February	March	April	May	June	July	August	September	October	November	December

Checked?												

Minimum inspection/environmental monitoring routine for this project:

Activity	Weekly	Monthly	Quarterly	6 Month	As & when required
Review of permits, licences and legislation			X		
Checklist 28		X			
Environmental Head Office Monthly Report (Construction South)		X			
Waste info input to Waste Tracker (correct information on dockets, licensed carriers and disposal facilities)		X			
Noise Monitoring					
Dust/Air Quality Monitoring					
Vibration monitoring					
Sub contractor SWMP Questionnaires (input into SWMP)					
Water benchmark monitoring (data on Impact)		X			
CO_2 benchmark monitoring (data on Impact)		X			
2 No. Environmental Toolbox talks		X			
Update SWMP (review and amend as appropriate)					
Update AIR (review and amend as appropriate)			X		
Weekly Supervisors Inspections					
Directors Tours (HS&E)					
Environmental incidents/ NCR's					X
EMS and Good Practice Audit (carried out by Head Office Team)			X		

Project Leader to confirm frequency of any activity that is not in **Red/Bold** (which are mandatory requirements)