Construction Environmental Management Plan (CEMP) 2018

Construction Environmental Management Plan

For

James Randall

at

8 Fairview Road, Lancing, West Sussex, BN15 0PA

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LIST OF ABBREVIATIONS

Abbreviation	Full Name
BPM	Best Practicable Means
AC	Adur District Council
CEMP	Construction Environmental Management Plan
COSHH	Control of Substances Hazardous to Health
DEFRA	Department for Environment, Food and Rural Affairs
EA	Environmental Agency
EIA	Environmental Impact Assessment
EMS	Environmental Management System
ES	Environmental Statement
HA	Highways Agency
HGV	Heavy Goods Vehicle
HSE	Health and Safety Executive
LA	Local Authority
LPA	Local Planning Authority
QMS	Quality Management System
SuDS	Sustainable Drainage Systems
SWMP	Site Waste Management Plan
RAM	Risk Assessment Management
VER	Valued Ecological Receptor
WRAP	Waste Resource Action Programme

1. PURPOSE

Introduction

Preparation of a draft Construction Environmental Management Plan for the proposed demolition and redevelopment at 8 Fairview Road, Lancing, West Sussex, BN15 0PA.

The environmental management of the works will be delivered through the development of this CEMP. This CEMP describes how construction activities will be undertaken and managed in accordance with environmental commitments and requirements identified within the Environmental Statement (ES), planning conditions, contractual and legislative requirements and construction industry best practice.

The contractor will be responsible for safeguarding the environment and for mitigating the effects of the works by implementing the general environmental requirements of this draft CEMP.

Project Description

The Project comprises of the demolition of an existing two bedroomed dwelling and the erection of a four bedroomed dwelling, garage, studio and associated landscaping.

CEMP Content

This draft CEMP includes a number of tools which provide the Contractor with advice on environmental protection. The Environmental Aspects and Impacts Register (the Register) contained in Appendix B of this document is a record of all sensitive environmental features that have the potential to be affected by the construction of the scheme. The Register also includes information on how these features will be affected and the control measures required to mitigate any potential impacts. The draft CEMP also contains comprehensive Management Plans which detail the measures required to reduce the potential for impacts and will provide control procedures to all staff on dealing with environmental issues during the works.

The CEMP will be critical to the successful management of construction environmental issues during the works. All site activities must be undertaken in compliance with the developed CEMP.

The Contractor will be responsible for safeguarding the environment and for mitigating the effects of the scheme and its construction throughout the works in line with the Contract's requirements.

This CEMP will be a live working document, subject to constant updating and is incorporated into the Contractor's Quality Management System (QMS) and/or Environmental Management System (EMS).

During the works, the CEMP will be updated on a regular basis. Each section is reviewed and updated as necessary and an electronic version of the updated CEMP circulated to the Project Manager/Supervisor.

A register of consents, undertakings and assurances, including a suggested list of specific environmental licences, consents and applicable permits is detailed in this document, which will be further updated by the Contractor.

The emergency contact details for the works will be clearly displayed at the site where the public can see them This draft CEMP has been prepared with reference to the ES and Code of Construction Practice (CoCP). Included within this draft CEMP, are detailed statements for the methods and controls proposed to be employed to satisfy the general requirement to safeguard the environment and mitigate any adverse effects of the works.

The CEMP includes monitoring and reporting procedures and method statements for the works.

All documentation in relation to the environmental management of the works willl be maintained by the Contractor and made available to the Project Manager/Supervisor.

The performance of the Contractor's CEMP in meeting environmental objectives and targets and in achieving effective environmental management willl be subject to ongoing review by the Project Manager/Supervisor.

The Contractor may wish to register with a 'Considerate Constructors' scheme.

Emergencies

In the event of an accidental release of hazardous materials, information regarding those materials, spill containment materials and spill response equipment will be clearly stated on site and submitted to the Project Manager/Supervisor before the start of the works. A procedure for a general response will be included in the Health and Safety Plan; stating the chain of command and standby operatives, and clearly advised to all staff.

A list of all nearby residential properties, downstream abstractors and other sensitive receptors that could be affected by an environmental incident will be compiled and maintained by the Contractor.

The site community must be informed about the environmental incident at the time if felt necessary by the Contractor.

Environmental incidents shall be recorded by the Contractor including;

- Nature of spill/leak/incident;

- Time/date;
- Exact location;
- Type of material released;
- Approximate volume released;
- Actions taken to prevent contamination;
- Individuals reported to; and
- Lessons learnt.

Lessons learnt will be fed back to site staff through safety and environment briefings and used by the Environmental Manager/Co-ordinator to amend procedures and update the CEMP accordingly.

Emergency procedure will be tested monthly by the Environmental Manager/Coordinator and results reported to the Project Manager/Supervisor. Examples of procedures would include:

- The names and 24-hour contact details of all emergency response personnel and emergency services;
- The procedures for reporting and documenting an emergency incident;
- Personnel responsibilities during an emergency incident; and
- The location of on-site information on hazardous materials and spill containment materials.

Monitoring and Auditing

It is essential that regular inspections of the site occur to ensure compliance with the CEMP, and to minimise the risk of damage to the environment. All environmental incidents are to be reported to the Project Manager.

The Contractor will undertake monthly inspections and complete an assessment of the works' environmental performance measured against environmental standards, relevant legislation and the CEMP objectives. The Environmental Manager/Co-ordinator will produce a monthly report detailing all findings.

Document control will be in accordance with the QMS and copies of all environmental audit reports, consents and licences shall be maintained by the Contractor, and held onsite for review at any time.

Internal and external environmental auditing and inspections will be complied with. Internal audits will be undertaken by the Contractor on a fortnightly basis and recorded.

External audits willl be performed monthly by IDP Safety consultancy who are external to the Contractor. The data collected from the inspections and audits willl be used in evaluating the environmental aspects of the works. The Contractor will be responsible for the Audit Schedule, which will be communicated to all relevant sub-contractors.

The Contractor will be responsible for investigating and addressing any non-conformances raised by the audit within an agreed time frame and ensuring that corrective and preventative actions have been fully closed out.

Communication

The Contractor is required to manage the environmental impacts of all suppliers that provide services in relation to the works.

The environmental stewardship of suppliers working with/for the Contractor willl be managed, monitored and reported through the application of Method Statements.

The Contractor will cooperate fully with arrangements for auditing suppliers' safety and environmental procedures.

2. ENVIRONMENTAL TOPIC ISSUES AND SITE CONTROL MEASURES

Air Quality

The proposed site has the potential to affect air quality as a result of emissions during construction (dust from construction activities; and exhaust emissions from plant, and on and off site construction vehicle movements).

Dust

Currently there is no UK statutory standard or limit appropriate for the assessment of deposited dust or resulting nuisance impacts. However, reference is often made to an annual deposition of 200 mg/m2/day as a value for the threshold to serious nuisance. Levels of acceptability can relate to the percentage increase in the background deposition rate, which itself can vary substantially. For deposited dust, the UK National Survey of Air Quality produced the mean levels of Deposited Dust

Measurement Location Mean Dust Deposition (mg/m2/day)

In Open Country 39
Outskirts of a Town 59
New Factory 84
Purely Industrial Area 127

Mitigation

Appropriate dust mitigation measures for the works include:

Site Management

- Records of any dust and air quality complaints will be kept, including likely causes and mitigation measures to reduce impacts if appropriate;

- Daily on-site and off-site visual inspections will be undertaken and recorded;

- Inspections will be increased in frequency during periods of high activity or prolonged dry, windy weather; and

- All site perimeter, fences etc will be kept clean.

Site Planning (Please refer to attached Site Logistical Plan)

- Consideration will be taken of weather conditions, dust generating potential of material to be excavated prior to commencement of works;

- Plan site layout to maximise distance from plant/stockpiles etc to sensitive receptors;

- If work within 20m of residential properties cannot be avoided, erect solid screens at least as high as stockpiles; and

- Dusty materials will be removed from site as soon as possible.

Construction Traffic

Due to the narrow access driveway leading to 8 Fairview it will be necessary to have all deliveries to site made by smaller than normal HGVs . Articulated HGVs are out of the question. Flatbed HGVs with Hiab facilities will be used where possible.. All HGV Concrete lorries are to be 6m capacity to allow direct access. Any deliveries to site will be Marshalled in and out of the Site by a competent banksman.
Deliveries will be limited to one only at any time and will be managed in there timings by the Site Management,
The large Plant that is considered to be used is –

- 13Ton 360 digging machine
- Small tipper Dumper machine
- 9Oltr Electric Cement Mixer
- Telescopic Forklift handler

All other items of plant will be small. electric and non disruptive to Neighbouring properties.

- Loads entering and leaving the site with dust generating potential will be covered and wheel washing facilities made available;

- No idling of vehicles;

- Vehicles to comply with site speed limits (5mph);

- Water assisted sweeping of local roads to be undertaken if material tracked out of site; and

- Install hard surfacing as soon as practicable on site and ensure that they are maintained in good condition.

Site Activities

The Contractor will-

- Minimise dust generating activities, particularly near residential receptors during prolonged dry, dusty weather unless damping / other suppressants are used;

- Ensure an adequate water supply to site and use water as dust suppressant where applicable;

- Ensure any site machinery is well maintained and in full working order and records kept

- Ensure equipment available for cleaning spills etc available at all times; and

- Sand and aggregates are to be stored away from sensitive receptors and screened/shielded. Similarly concrete batching will take place away from receptors.

3. ECOLOGY AND BIODIVERSITY

Basic Requirements

The Contractor will incorporate any tree / bush protection requirements into the works

Construction Impacts on Ecological Receptors

Impacts arising from construction activities of the proposed scheme are:

- Habitat loss;

- Habitat fragmentation;

- Disturbance from visual, noise, dust and lighting impacts;

- Increased mortality for the species present during site clearance and construction; and

- Pollution, principally in the form of increased dust and lighting, or possibly by the incidental release of chemicals, fuels or waste materials.

The associated impacts will not be significant for any protected sites' VERs (no protected sites in close proximity to the site) but potentially significant at a local level for the species' VERs

Mitigation

The following mitigation are to be provided to minimise the unavoidable effects of the construction phase:

- Good practice construction methods (as indicated in Environment Agency's Pollution Prevention Guidelines) which provide advice on methods of avoiding pollution and disturbance of nearby valued habitats;

- Design and delivery of the CEMP that incorporates ecological protections for all sensitive ecological features;

- On site, to avoid Physical protection of the retained hedge features on the site by maintaining an undisturbed buffer zone along the hedge (incorporating British Standard Tree Protection Guidelines for the hedge trees);

- Avoidance of artificial lighting spill onto the hedges during the construction phase;

- Avoidance during site preparation of any areas where nesting birds are found, during the bird nesting season;

In accordance with the hierarchy of mitigation proposed above, the Contractor(s) will implement the following measures, shown below.

Generic Mitigation Measures for Ecology Issue /Category Control Measures

Ecology Management Plan

- Implementation of the CEMP by the Principal Contractor(s); and a Works Method Statement(s) developed to illustrate how impacts on ecology and biodiversity would be managed throughout the construction process.

- Good construction Site Management will be implemented to avoid / minimize generation of excessive litter, dust, noise and vibration.

- Measures will be implemented to avoid / minimise potential for fuel and chemical spills.

- There will be no storage of potentially contaminating materials in areas of hydrological sensitivity.

- A Pollution Incident Response Plan will be included as part of the CEMP to ensure that impacts from any potential accidental spills can be reduced to a minimum.

Work Compounds

- Work compounds and access tracks, etc. would not be located in, or adjacent to, areas that maintain habitat value.

- Establish site fencing by erecting to prevent access to areas outside working areas, particularly in areas adjacent to features of interest / value.

Materials Storage

- Procedures would be implemented to address site safety issues, including storage of potentially dangerous materials

Watercourses

- Pollution prevention guidelines provided by the Environment Agency (including but not limited to PPG1, PPG2, PPG3, PPG5 and PPG6) would be followed to prevent pollution of watercourses by silt or chemicals.

Biodiversity

- Briefings and instruction would be given to staff and contractors regarding the biodiversity issues associated with the site.

Best Practice /Site Management Procedures

- Workforce will be restricted to working areas through the erection of fencing, to prevent additional damage;

- Cover trenches over night to prevent wildlife (for example, badgers) from falling in, and becoming trapped resulting in injury or death;

- Best practice methods would be followed throughout; and

- Protocols and contingency plans will be established to deal with incidents should they arise.

Landscaping

- All new landscape plantings are to be locally typical and / or species native to the south east region, to complement the semi-natural habitats of the local area in line with the proposed scheme design.

4. HAZARDOUS MATERIALS AND WASTE

General

Any hazardous materials used, will be stored and transported in a safe manner. All personnel and contractors involved with hazardous materials handling shall be made

aware of the associated environmental hazards and risks and shall be appropriately trained in routine activities and emergency actions.

An up-to-date list of the hazardous materials on site will be prepared, specifying their location. The Environmental Manager will regularly review this.

All hazardous materials will be kept in adequate conditions of containment, within controlled areas and securely protected from contact by non-authorised personnel, including trespassers and vandals. The quantities of hazardous material stored at any one time shall be minimised.

COSHH assessments shall be held on site for all hazardous materials. These give advice on the type of storage needed for the chemicals, i.e. bunded areas, and storage of flammable products in locked cupboards.

All hazardous materials shall be used in line with manufacturers' instructions. The correct quantity of chemicals shall be used and, where possible, less hazardous alternatives considered. All hazardous materials shall be used and stored within drip trays to prevent contamination. Drip trays underneath mobile plant, such as generators, shall also be used.

Before any existing tanks or pipework are removed or perforated, particularly during demolition works, all contents and residues for disposal to a licensed waste disposal contractor shall be identified. Pipes that may contain significant quantities of oil or chemicals shall be capped, or valves closed to prevent spillage.

Any disposal of product or empty product containers shall be in accordance with waste management legislation and related COSHH sheets.

Site drainage maps shall be prepared identifying drainage collection and outfall location.

Site Waste Management Plan (See attached SWMP)

Provisions under the Site Waste Management Plan (SWMP) Regulations 2008 came into effect from 6 April 2008. All projects valued over £300,000 are required to prepare and implement a basic SWMP, with those over £500,000 requiring a more detailed plan.

The Principal Contractor(s) will be the responsible for preparing and implementing the detailed SWMP. The SWMP will set out the methods and procedures for managing all wastes and will be designed in line with the waste hierarchy (re-use; recycle and compost; energy recovery; landfill).

The SWMP will:

- Define responsibility for waste management (to a named individual);

- Provide a preliminary estimation of waste types and quantities;

- Identify waste minimisation measures;

- Propose reuse, recycling and disposal options for all wastes, including excavated hazardous wastes if identified;

- Propose health and safety and handling measures for any asbestos containing materials (ACMs) identified during earthworks;

- Identify means by which any excavated contaminated soils associated with the earthworks and construction phase can be remediated so that the material can be re-used or recycled;

- Provide clear guidance on the sampling and analysis of soils and aggregates resulting from excavations and earthworks to categorise them (to include Waste Acceptance Criteria testing when classed as hazardous);

- Provide clear information on site waste management (including details of waste sampling, testing and treatment);

- Identify what materials are to be segregated on site for reuse or recycling;

- Define suitable locations for the storage and stockpiling of various waste streams and the on- site and off-site management and treatment of these;

- Identify potential off-site waste management facilities for each waste type including transport distances; and

- Facilitate the collection of data and retention of all waste related documentation.

5. LANDSCAPE AND VISUAL

Basic Requirements

For acceptance, three weeks before the first access date.

Background

Potential impacts predicted to arise during the construction phase are:

- Site clearance and removal of vegetation to accommodate the temporary construction area

- General construction activities including: movement of construction machinery and large scale construction equipment; soil stripping; cutting excavations; presence of construction workers; presence of site compounds; material stockpiles; presence of hoardings and protective fencing; presence of temporary lighting and signage;; installation of lighting; and planting; and

- Vehicles moving materials to and from the site.

Mitigation

Proposed mitigation measures are:

- Use of hoardings should be considered to provide screening from any residences in close proximity;

- Materials and plant should be stored in less visually intrusive areas of the site;

- Any temporary lighting used should be targeted away from sensitive receptors; and public roads should be kept clean.

6. NOISE AND VIBRATION

Basic Requirements

The Contractor shall incorporate these draft Noise & Vibration Management Plan requirements into the works, update and submit his developed Noise & Vibration Management Plan as part of the developed CEMP to the Project Manager.

Mitigation

In order to keep noise impacts from the construction phase to a minimum, the following mitigation measures will be adopted during construction.

Core site working hours would be Monday to Friday 08:00 to 18:00 hours.

All vehicles and mechanical plant used for construction of the works would be fitted with effective exhaust silencers, and regularly maintained;

Inherently quiet plant would be used where appropriate. All major compressors would be sound-reduced models fitted with properly lined and sealed acoustic covers which would be kept closed whenever the machines are in use, and all ancillary pneumatic percussive tools would be fitted with mufflers or silencers of the type recommended by their manufacturers;

All ancillary plant such as generators, compressors and pumps would be positioned so as to cause minimum noise disturbance. If necessary, acoustic barriers or enclosures would be provided; and

The contractor would adhere to the codes of practice for construction working and piling given in British Standard BS 5228:2009 and the guidance given therein minimising noise emissions from the site.

General Noise Management Requirements

The Principal Contractor(s) shall prepare a Noise and Vibration Management Plan to adhere to best practice and mitigation measures on site that would adhere to the codes of practice for construction working and piling given in British Standard BS 5228:1992 and the guidance given therein minimising noise emissions from the site.

The Contractor(s) would adhere to the codes of practice for construction working and piling given in British Standard BS 5228:1992 and the guidance given therein minimising noise emissions from the site.

Best practicable means (BPM) will be used during the construction of the proposed scheme in order to minimise levels of construction noise and vibration. This will include the use of temporary noise barriers and acoustic enclosures, together with silenced plant and equipment that is maintained and in good working order.

Vehicles and Plant

All vehicles and mechanical plant used for the purpose of the proposed works shall be fitted with effective exhaust silencers and shall be maintained in good and efficient working order.

Lorries shall enter and exit work sites in a forward direction, except where space restriction does not permit this. This will assist in the minimisation of noise from reversing alarms. In that event, movement shall be properly controlled by a responsible person(s) observing the rear of the vehicle. Entry and exit conditions shall be approved with Local Highways Authority prior to their implementation.

All compressors shall be “sound reduced” models fitted with properly lined and sealed acoustic covers which shall be kept closed whenever the machines are in use, and all pneumatic percussive tools shall be fitted with mufflers or silencers of the type recommended by the manufacturers.

All machines in intermittent use shall be shut down in the intervening periods between the proposed Works or throttled down to a minimum. Noise emitting equipment which is required to run continuously shall be housed in a suitable acoustic enclosure (see BS 5228 Part 1, Figures B.1, B.2 and B.3).

Items of plant shall be maintained in good working condition so that extraneous noises from mechanical vibration, creaking and squeaking are reduced to a minimum.

As far as practicable, demolition shall be carried out using equipment that breaks concrete by bending in preference to percussive methods.

Any pile driving shall be carried out by plant equipped with a noise reducing system or by silent driving systems.

Industry Best Practice

BS 5228 provides details on industry best practice for the control of noise and vibration during various construction activities.

Piling

The Contractor(s) shall be familiar with, and work in accordance with, the British Standard BS 5228 Part 4 Code of practice for noise and vibration control applicable to piling operations.

Monitoring

Subjective noise and vibration monitoring will be undertaken as part of the weekly site surveys. More detailed monitoring will be undertaken should it be considered necessary.

7. SITE ARRANGEMENTS

The following requirements applicable for effective arrangements on site.

A Construction Activities Management Plan, and Health & Safety Plan prepared by the Principal Contractor(s) will detail these measures to be implemented on site.

Site Lighting

Lighting to site boundaries adjacent to public highways, footways, cycle ways or Rights of Way shall be provided with illuminations sufficient for the safety of the passing public, including mobility impaired people. In particular, precautions shall be taken to avoid shadows cast by the site hoarding on surrounding footpaths and roads.

Site lighting shall be kept to a minimum brightness for adequate security and safety. Construction buildings, equipment and lighting shall be sited so as to minimise visual intrusion and light spillage at nearby residential properties, consistent with the efficient operation of each work site.

Fencing and Hoarding

All site work will be sufficiently and adequately fenced off from members of the public and to prevent any animals from straying on to the work sites. Such fencing shall be constructed to the reasonable satisfaction of the Project Team but shall provide satisfactory security features and lighting as well as a particular appearance or acoustic rating as needed.

The height shall be increased where necessary to protect buildings from noise and where local terrain or structures would allow the fence to be scaled by potential intruders.

Gates in the fencing or hoarding shall, as far as is practicable, be positioned and constructed to minimise the noise transmitted to nearby noise sensitive buildings from the site direct or from plant entering or leaving the site.

Note

Any spoil heaps are to be kept lower than the highest point of Boundary Fencing.

Security

A common cause of pollution from construction sites is through vandalism. Therefore, the proposed scheme site shall be adequately protected from intruders, and plant and equipment shall be locked and immobilised overnight. Site gates shall be closed and locked to prevent trespassing and vandalism when there is no site activity. Any

alarms shall meet health and safety requirements and the requirements of the Code of Practice on Noise from Audible Intruder Alarms, 1982.

Housekeeping

A ‘good housekeeping’ policy will be followed at all times. This shall include, but not necessarily be limited to, the following requirements:

- Smoking areas will be provided at suitable locations at ground level as far as practicable;
- Open fires are prohibited at all times;
- Rubbish will be removed at frequent intervals and at least daily, and the site kept clean and tidy;
- Adequate toilet facilities will be provided for all staff. Toilet facilities will be kept clean;
- Food waste will be contained and removed at least daily;
- The wheel washing facilities area will be brushed clean at frequent intervals; and
- Hoardings will be frequently inspected, repaired and re-painted as necessary.

The site will be enclosed with a 2.4 metre high secure boundary fence to the rear where it abuts the school playing field and a 2.4 metre high hoarding to the front and side returns where it abuts the public highway. Where the site abuts residential gardens to the left and right hand side we have allowed for a 2 metre high secure boundary in accordance with the regulations.

The site perimeter fencing will therefore be a combination of painted and branded timber hoardings to the front elevation and Heras fencing to the side with Heras fencing at the rear elevated and fixed to the existing fencing to achieve a 2.4 metre height.

There will be a large pair of vehicle access gates on the front elevation. Initially. In addition to this there will be a personnel door with a coded entry lock to separate the pedestrian entrance from vehicle entrance and sufficient pedestrian control barriers behind to separate the access ways.

This site perimeter and entrance arrangements will be maintained throughout the whole duration of the works.

8. TRAFFIC AND TRANSPORT

Basic Requirements

The Contractor shall incorporate these draft traffic and transport requirements into the works, update and submit his developed Construction Traffic Management Plan as part of the developed CEMP to the Project Manager/Supervisor, for acceptance, three weeks before the first access date.

Background

The traffic arising from the proposed scheme will affect the local area on a daily basis. However, the impacts of the construction traffic generated by the scheme during the peak hours when the highway network is at its busiest, are not of sufficient magnitude to be considered a material impact.

Receptors that may be affected by the traffic and transport impacts include:

- Road users – including vehicle operators and occupants;
- Public Transport users; and
- Vulnerable road users – including pedestrians and cyclists.

Mitigation

The following measures should be implanted by the Principal Contractor(s):

- Haulage routes should be chosen to minimise disruption to traffic along both trunk and local roads;
- All loading and unloading of vehicles shall take place off the public highway wherever this is practicable;
- Vehicles arriving or leaving the site shall do so during the normal working hours unless otherwise agreed with the Local Highways Authority. Access and egress points shall be as agreed with the Local Highways Authority and local Police;
- All reasonable measures shall be taken to ensure that delivery vehicles do not park on the highway prior to entering the site. In exceptional circumstances, it may be necessary to have the potential for a limited number of vehicles to park on the highway, but only with the agreement of the Local Highways Authority and the local Police;
- Construction vehicles will be expected to off load tools and Plant and park in areas that will not affect or cause nuisance to the neighbourhood. All parking shall be limited to non-peak hour periods where practicable, to reduce disruption on the local highway network;

9. WATER ENVIRONMENT

Basic Requirements

The Contractor will incorporate these draft Water Management Plan requirements into the works, update and submit his developed Water Management Plan as part of the developed CEMP to the Project Manager/ Supervisor, for acceptance, three weeks before the first access date.

Background

Construction activities may result in both direct and indirect impacts on the water quality, flooding, drainage and the hydrogeology of the site. There are no surface watercourses on the site and so drainage is likely to be via infiltration to groundwater. Impacts which extend beyond the site include indirect effects upon the wider catchment, particularly with regard to flood risk.

The use of water for dust suppression may also increase runoff quantities during construction and any excavation of potentially contaminated soil could have an impact on both surface and groundwater quality.

Most pollution incidents are avoidable. Careful planning of operations, responsible waste management and suitable anti-pollution measures reduce the risk of spillage, along with simple precautions to deal with any potential spillages. The costs of cleaning up a pollution incident can be very high, and the consequences of a prosecution for environmental offences serious.

Mitigation

The works shall be undertaken in accordance with the Environment Agency's (EA) Pollution Prevention Guidelines and in particular the National Planning Policy Framework.

Mitigation measures during construction comprise measures to prevent runoff carrying sedimentation or construction materials into ditches (and potentially local watercourses) via the use of bunds and interceptors where necessary. Surface water shall be prevented from entering excavations, e.g. by the use of cut off ditches. Temporary site compounds where located at/near to any potential sources of contamination shall be provided with anti-pollution measures such as bunded trays for standing pumps and chemical storage containers.

Construction vehicles shall be maintained to reduce the risk of hydrocarbon contamination (defined for the CEMP as petrol, diesel and oils). Other construction materials will be managed in such a way as to effectively minimise the risk posed to the aquatic environment.

Nothing will be permitted to enter the surface water drains which could cause pollution, including silty water.

No foul drainage or contaminated surface water run-off (including any silty water) will be discharged into any borehole, well, spring, soak away or watercourse (including dry ditches having a connection with a watercourse).

Any water that has come into contact with contaminated materials shall be disposed of in accordance with the Water Resources Act 1991 and the Water Industry Act 1991 (if disposed to public sewer) to the satisfaction of the EA sewerage provider and local authority as applicable.

Good housekeeping shall be practiced including:

- Carrying out regular inspections of discharges, drainage systems, collection ditches, swales, interceptors and ditches to ensure that they are in good order;

- Where possible, the installation of SUDS at the beginning of the project to assist in dealing with the construction site run-off;

- Providing and maintaining spill clean up kits on site at all times and training staff in their use; and

- Stabilising surfaces and/or re-vegetating as soon as possible.

- Run-off from earthworks, excavation and digging activities shall be appropriately managed.