

Appendix 5A – Outline Construction Environmental Management Plan (CEMP)

1 Introduction

1.1 Project Summary

1.1.1 Stockport Metropolitan Borough Council in partnership with Cheshire East Council and Manchester City Council are proposing to construct a new dual carriageway connecting the A6 in the east to Manchester Airport in the west.

1.1.2 The new road is approximately 10 kilometres long, and will include ten new and seven improved junctions. It also incorporates a further 4 kilometres of existing A555 dual carriageway to the south of Bramhall. There are four rail crossings in the new sections, one of which is over the West Coast Main Line. A pedestrian and cycle route is proposed for the whole length of the scheme, including retrofitting it to the 4 kilometre existing section of A555.

1.2 Purpose of this Document

1.2.1 The Contractor is required to develop and implement a Construction Environmental Management Plan (CEMP) to help ensure that construction activities are planned and managed in accordance with the environmental requirements identified within the Environmental Statement (ES).

1.2.2 It is anticipated that the contractor uses this document as the template for their own individual CEMP. Further details specific to the works being undertaken will be worked up by the Contractor into their CEMP as the Proposed Scheme progresses.

1.3 Scope of the Construction Environmental Management Plan (CEMP)

1.3.1 The CEMP will document the Contractor's plans to ensure compliance with their legal and contractual obligations as well as implement best practice in construction environmental management.

1.3.2 The CEMP will be applicable to all works associated with the Proposed Scheme including those carried out by sub-contractors.

1.4 Structure of the CEMP

1.4.1 The following structure has been adopted for this CEMP:

- Chapter 1 - Introduction
- Chapter 2 - Training and Induction
- Chapter 3 - Consultation and Communication
- Chapter 4 - Environmental Impacts and Mitigation
- Chapter 5 - Pollution Control and Contingency Plan
- Chapter 6 - Auditing and Monitoring of Environmental Performance

- Annex 1 – Environmental Advice Notes
- Annex 2 – Construction Procedures

1.5 Roles and Responsibilities

- 1.5.1 The Contractor is responsible to ensure that all members of the Project Team, including sub-contractors comply with the procedures set out in the CEMP. The Contractor will ensure that all persons working on site are provided with sufficient training, supervision and instruction to fulfil this requirement.
- 1.5.2 The Contractor will ensure that all persons allocated specific environmental responsibilities are notified of their appointment and confirm that their responsibilities are clearly understood.
- 1.5.3 The principal environmental responsibilities for key staff can be identified as follows:

Site Manager

- 1.5.4 The Site Manager's environmental management responsibilities include but are not limited to:
- preparation and implementation of the CEMP;
 - close liaison with the Environmental Manager to ensure adequate resources are made available for implementation of the CEMP;
 - ensuring that the risk assessments for control of substances hazardous to health regulations (COSHH), noise and environmental risk are prepared and effectively monitored, reviewed and communicated on site; and
 - managing the preparation and implementation of method statements. Ensuring that the Environmental Manager reviews all method statements and that relevant environmental protocols are incorporated and appended.

Environmental Manager (EM)

- 1.5.5 The responsibilities of Environmental Manager include but are not limited to:
- maintaining environmental records;
 - providing guidance for the site team in dealing with environmental matters, including legal and statutory requirements affecting the works;
 - reviewing environmental management content of method statements;
 - reporting environmental performance to the Site Manager;
 - liaison with statutory and non statutory bodies and third parties with an environmental interest in the scheme; and

- collection and collation of CEEQUAL evidence.

Engineering Staff

- 1.5.6 The engineer's environmental management responsibilities include but are not limited to:
- reporting any operations and conditions that deviate from the CEMP to the Site Manager;
 - taking an active part in site safety and environmental meetings; and
 - ensuring awareness of the contents of method statements, plans, supervisor's meetings or any other meetings that concern the environmental management of the site.

Supervisors

- 1.5.7 The supervisors' environmental management responsibilities include but are not limited to:
- ensuring all personnel affected by a method statement are briefed and fully understand its content. Monitor operatives for compliance, including sub-contract operatives;
 - implementation of environmental management activities required by the CEMP and works method statements; and
 - ensuring that all inspections are carried out as prescribed in the CEMP.

Ecological Clerk of Works (ECoW) (part of the Client's supervisory site staff)

- 1.5.8 The ECoW will be on site when required to monitor work to ensure that no wildlife comes to harm and also to provide advice to site workers regarding best practices. ECoW duties include, but are not limited to:
- monitoring site works;
 - provision of status reports and updates;
 - provision of advice to and liaison with workers on site;
 - identifying environmental risks and developing environmental controls;
 - delivery of environmental training for site personnel and sub-contractors; and
 - liaison with the Site Manager.

Archaeologist

1.5.9 The Archaeologist will be on site when required to monitor excavation works and also to provide advice to site workers regarding best practices. The archaeologist's duties include but are not limited to:

- completion of mitigation works in the form of targeted trial trenching, archaeological excavation and watching briefs, as required;
- production of detailed method statements to define how archaeological mitigation is sequenced with earthworks operations;
- certification of cleared areas prior to commencement of construction works;
- agreeing areas for topsoil strip or the use of toothless buckets;
- ensuring that all known archaeological features requiring protection are demarcated with protective fencing and adequate signage;
- provision of induction training to site teams on archaeological controls;
- providing instructions to the site teams on how and when to access expert advice and opinions; and
- examination of incidental or unexpected finds; and
- agreeing programmes with the Site Manager for investigation and recording of archaeological remains.

2 Training and Induction

2.1 Site Induction

2.1.1 All personnel involved in the Proposed Scheme will receive environmental awareness training. The environmental training and awareness procedure will ensure that staff are familiar with the principles of the CEMP, the environmental aspects and impacts associated with their activities, the procedures in place to control these impacts and the consequences of departure from these procedures.

2.2 Specific Training and Awareness Raising

2.2.1 A project specific training plan that identifies the competency requirements for all personnel allocated with environmental responsibilities will be produced by the Contractor.

2.2.2 Training will be provided by the Contractor to ensure that all persons working on site have a practical understanding of environmental issues and management requirements prior to commencing activities.

2.2.3 A register of completed training is to be kept by the Environmental Manager. The Site Manager will ensure that environmental emergency plans are drawn up and the Environmental Manager will conduct regular checks to ensure that the plan is effective by means of emergency drills.

3 Consultation and Communication

3.1 Statutory and Non-Statutory Bodies

3.1.1 During the construction works, communication will be required with external parties such as, statutory authorities, interest groups and the public. Communication may take the form of scheduled meetings, site visits and written correspondence.

3.2 Public

3.2.1 The Site Manager shall ensure that the public is kept informed of operations that may have an effect upon them. This may involve letter drops and meetings to keep local residents up to date with progress with the scheme and any new operations that are to be carried out. The Site Manager will provide details of contacts within the project team for the public to contact should any issues arise.

3.3 Statutory Consents, Licences and Permits

3.3.1 The provisions for controlling, pumping and discharging water will be agreed with the Environment Agency. The Contractor will ensure that any licences required are in place prior to works commencing.

3.4 Environmental Alerts

3.4.1 Legislative changes or proposed improvements to manage processes on site that have a bearing on the commitments given in the Environmental Statement or other consultations will be communicated by the Site Manager to the Client.

3.5 Meetings and Records

3.5.1 Environmental issues relevant to the project will be discussed during weekly Site Progress Meetings attended by the Site Manager and Environment Manager. Environmental performance will also be discussed at regular HSEQ meetings. This will include dissemination and discussion of the findings of audits, environmental reports and other inspections where appropriate.

4 Environmental Impacts and Mitigation

- 4.1.1 An environmental review of the Scheme has been completed to identify all the commitments and agreements made within the ES and other consultations. From this, a schedule of environmental commitments has been produced, which details deliverables including measures identified for the prevention of pollution or damage to the environment during the construction phase. Environmental commitments have also been incorporated by the design team into archaeological, ecological, landscape and other relevant designs and specifications.

5 Pollution Control and Contingency Plan

5.1 Surface Water Run-off, Groundwater and Silt

- 5.1.1 All operations on site will be carried out in a manner to minimise the production and discharge of silty waters. In particular, where any dewatering has to be carried out an assessment will be made as to the method of disposal of the waters and agreed with the Site Manager.
- 5.1.2 The management of surface water run-off will be defined within the operation specific method statement and risk assessment. This will ensure that the right solution is implemented for each works activity.

5.2 Fuel, Oil and Chemical Spillage

- 5.2.1 All fuel, oil and chemical deliveries will be supervised by a responsible person who will be trained to deal with any spillage to prevent a pollution problem occurring.
- 5.2.2 Storage tank levels will be checked before delivery to prevent overfilling and to ensure that the product is delivered to the correct tank.
- 5.2.3 The storage of materials in the main compound and work sites will be controlled in such a manner to ensure that materials are not damaged prior to use either through vehicle or people movements or through exposure to the elements.
- 5.2.4 All fuel, oil and chemicals will be stored on an impervious base within a bunded area and secured. The bund shall have a capacity of 110% of the volume of the products stored within it. All tanks and containers will be kept in a secure compound and be protected from vandalism, and will be clearly marked with their contents. Stores shall be located at least 10 metres from any watercourse.
- 5.2.5 All mobile plant will be refuelled in a designated area on an impermeable surface and away from drains. In case of any spillages there will be a spill response kit available at each refuelling point and within each machine working within the highway corridor. Where it is impractical to refuel within a bunded area, a drip tray will be available to catch any spills caused by over fuelling.

5.3 Concrete / Mortar Washout

- 5.3.1 There will be a designated area for the washout of concrete wagons, shoots and mortar bins at each work site. This will be either a lined skip or a pit lined with an impervious membrane to prevent the escape of the alkaline and silty waters entering groundwater or surface water. These pits will be located in areas of low groundwater sensitivity.
- 5.3.2 Excess concrete remaining in the delivery wagon at the end of a pour will be returned to a designated collection area. Once each worksite has been completed any solid

concrete in the washout area will be broken out and used either as suitable fill or disposed of to a licensed waste facility.

5.4 Material Storage

5.4.1 Stockpiles should be positioned as far away from sensitive receptors as possible and suitable measures implemented to prevent run off and dispersion if left for any length of time. Any powders should be stored in sealed bags or silos prior to use. All deliveries of dry powder should be undertaken in a manner to minimise dust emissions.

5.5 Emergency Procedures

5.5.1 A Site Environmental Emergency Plan will be prepared prior to construction and communicated to all members of the project team including sub-contractors and Emergency Services.

5.5.2 The plan will detail the following controls:

- site drainage controls;
- fuel handling procedures;
- incident notification procedures;
- pollution control equipment requirements;
- procedures for the control of dust and mud;
- protection of aquifer; and
- measures to protect watercourses and wildlife from chemical spills or sediment laden run off.

5.5.3 Responsible staff will be trained in emergency procedures to form an Emergency Team, so that these procedures can be implemented swiftly and effectively. Periodic testing of emergency procedures will be undertaken by the Site Manager. The Environmental Manager will observe the test and to report on results. Any corrective actions are taken forward for review and approval.

5.5.4 Should an emergency incident occur, the Environmental Manager will be notified immediately. The emergency response will be co-ordinated by the Site Manager.

5.5.5 Protective measures, mitigation, clean up and remediation actions will be identified from the evaluation and shall be put into place, having regard for the sensitivities of the environment. A record of the emergency incident will be kept to show the nature of the corrective action undertaken.

6 Environmental Performance Management

6.1 Environmental Risk Register

- 6.1.1 The Environmental Manager will prepare and maintain an Environmental Risk Register having regard for legal requirements, project environmental commitments the potential for aspects of works to cause significant environmental impact.
- 6.1.2 The Environmental Manager will record responsibilities assigned for actions required for mitigation and control of the environmental risks in the Environmental Risk Register.
- 6.1.3 The Environmental Risk Register will be subject to regular review by the Environmental Manager together with the Site Manager.

6.2 Consents and Exemptions

- 6.2.1 The Proposed Scheme will require consents and exemptions from various regulatory bodies in advance of construction activities. Copies of legal consents, permits, assents and licences of exemptions obtained will be held in the site environmental file by the Environmental Manager.

6.3 Method Statements and Risk Assessments

- 6.3.1 Specific environmental risks will be assessed during preparation of method statements. Actions and environmental constraints associated with specific construction operations will be included in method statements, field control sheets and activity plans where appropriate. Generic environmental requirements will be included in all method statements.

6.4 Inspections

- 6.4.1 Routine inspections to check that pollution control measures are in place will be undertaken by the Environmental Manager, who will produce weekly inspection reports.
- 6.4.2 Daily inspections will be made by the supervisors during each shift and any environmental problems or risks that are identified will be actioned as soon as is reasonably practicable. Any issues arising from the daily inspections will be notified to the Environmental Manager.

6.5 Auditing

- 6.5.1 A Project HSEQ internal audit schedule will be prepared. This will include audits of the implementation of the CEMP and audits of sub-contractor and supplier environmental performance by the Environmental Manager.

6.6 CEMP Review Programme

- 6.6.1 The CEMP is a live document that will be updated by the Contractor and reviewed by the Environmental Manager on a monthly basis.

6.7 Notices of Non-Conformance

- 6.7.1 In instances where the requirements of the CEMP are not upheld a Non-Conformance and Corrective Action Notice will be produced. The Notice will be generated during the inspections conducted by the Supervisors, the Site Manager, Environmental Manager or external third-party audits. The Site Manager will be responsible for ensuring a corrective action plan is established and implemented to address the identified shortcoming.

6.8 Complaints Handling

- 6.8.1 The response to any complaints will be managed by the Site Manager, who will inform the Environmental Manager of any environmental complaints.
- 6.8.2 A Complaints Register will be maintained to detail the name and contact details of the complainant, date and time of the complaint, nature of complaint, action taken to resolve issues, and date of complaint handover.
- 6.8.3 The Environmental Manager will ensure that all environmental complaints and concerns will be responded to in 24 hours.

6.9 Key Performance Indicators and Objectives

- 6.9.1 The Contractor will set Environmental Objectives in order to continuously improve environmental performance on the site. The Contractor will set objectives based on each significant environmental impact and they will be reviewed, and revised if necessary, on a monthly basis. Procedures, monitoring requirements and key performance indicators will be measured against achievable targets.

Annex 1 – Construction Procedures

The Contractors and their sub-contractors shall employ the Construction Procedures listed below as a practical means to effect environmental mitigation while working on the Proposed Scheme.

Draft versions of the Construction Procedures are set out below for guidance purposes.

The Contractor shall develop these further as an integral part of their operational procedures for issue as Controlled Documents.

Annex 1.1 Procedures for Site Clearance

Procedure for Site Clearance		CP01
Purpose	To minimise the impacts of site clearance works on ecological habitats and wildlife in the area.	
Responsibility for Control	Environmental Manager	
Procedures	<p>Before any work is undertaken, the proximity to water bodies and ecologically sensitive features shall be assessed.</p> <p>Whole trees shall be removed by trained operators using mulchers specifically designed for the purpose.</p> <p>As far as possible all woody vegetation shall be removed outside of the bird breeding season (March-August inclusive). Where this is not possible woody vegetation shall be checked prior to removal for active birds nests. If any are found works in that location shall cease until the nest can be confirmed as no longer active.</p> <p>Removal of top soil shall be undertaken in accordance with the soil stripping methods detailed in Procedure CP02.</p> <p>Removal of vegetation or top soil within 20m of a water course shall be carried out under the supervision of the Ecological Clerk of Works.</p> <p>If active birds nests, animal holes of sufficient size to be used by badger or otter, squirrel dreys, bats, lizards or newts are found during vegetation clearance then works in that location shall cease and ecological advice sought.</p> <p>Removal of trees highlighted as potential bat roosts in the ES or in update surveys shall be undertaken using a 'soft felling' method as detailed in the ES.</p> <p>A licence from Natural England may be required if a roost is confirmed as present.</p> <p>Removal of confirmed bat roosts shall take place under Natural England licence and in accordance with the method detailed in the ES.</p> <p>Removal of vegetation or top soil within 50m of an otter holt or breeding site as highlighted in the ES or update surveys shall be carried out under licence from Natural England.</p>	

Procedure for Site Clearance		CP01
	<p>Construction activities that are likely to damage or disturb an active badger sett as highlighted in the ES or update surveys shall be carried out under a licence from Natural England. Closure of badger setts can only be undertaken between July and November.</p> <p>Removal of ground flora or top soil within 250m of a newt pond as highlighted in the ES or update surveys shall be carried out in accordance with the specific newt habitat clearance guidance as detailed in the ES.</p> <p>Removal of ground flora or top soil within or adjacent to a newt pond as highlighted in the ES or update surveys shall be carried out under a licence from Natural England. This licence shall be required for the destruction of a newt pond and most probably only be granted between March and September.</p> <p>Removal of invasive species highlighted within the ES, update surveys or by site contractors shall be carried out under specific invasive species clearance methodology detailed in the ES.</p>	
Environmental Controls	All necessary, ecological licenses shall be in place prior site clearance start.	
Anticipated Plant and Equipment	<ul style="list-style-type: none"> • Excavator mounted and purpose built tracked mulchers • Excavator harvesters • Hand strimmers • Chainsaws • Tree climbing equipment 	
Monitoring	The Ecological Clerk of Works shall supervise vegetation removal in ecologically sensitive areas, all sites within 20m of water courses, all sites subject to a licence from Natural England, all vegetation cleared during bird breeding season and be on call during all vegetation clearance works.	
Emergency, Preparedness and Response	If active birds nests, animal holes of sufficient size to be used by badger or otter, or bats are found during vegetation clearance, the works in that location shall cease and the Ecological Clerk of Works shall be contacted.	
References	Environmental Statement	

Annex 1.2 Procedures for Soil Stripping

Procedure for Soil Strip		CP02
Purpose	<ul style="list-style-type: none"> • To minimise the impacts on ecological habitats and wildlife in the area during soil stripping. • To prevent damage to any archaeological remains discovered during construction. • To enable the re-use of topsoil and the re-establishment of vegetation after work is complete. 	

Procedure for Soil Strip		CP02
Responsibility for Control	Environmental Manager	
Procedures	<p>Prior to any topsoil being stripped, the topsoil shall be assessed for suitability for re-use on agricultural land, cut and fill slopes, planted landscape mitigation areas or on any areas of ecological interest.</p> <p>Method statements shall be prepared to identify the locations where the topsoil shall be stripped from, temporarily stockpiled and spread.</p> <p>Topsoil stripped from the area of excavations and the footprint of structural fill embankments shall be stockpiled in locations convenient for re-use once cut and fill slopes and landscape mitigation areas are ready for top soiling.</p> <p>Topsoil deemed suitable for re-use for agricultural regeneration or for shrub planting and other landscape mitigation shall be placed in stockpiles not exceeding 3 metres high.</p> <p>Stockpiles shall be allowed to vegetate to prevent erosion or weathering and shall be located away from drainage ditches.</p> <p>Finished worked slopes that are to be spread with topsoil shall be prepared as the earthworks progress and topsoil shall be spread as early as is practicable.</p>	
Environmental Controls	<p>Where required, Archaeological observers shall be present during the topsoil strip for a watching brief.</p> <p>Topsoil that has been identified as “ecologically interesting” shall be recorded as such within the method statement and shall be stockpiled for reuse in windrows no more than 1.5 metres high by 3 metres wide, shaped to shed water.</p> <p>Silt control measures shall consist of small bunds at the toe of the stockpiles as required. Spraying shall be carried out to prevent the proliferation of weeds.</p>	
Anticipated Plant and Equipment	<p>Topsoil shall be removed and loaded by a 360° excavator using a toothless bucket to dump trucks for transport to stockpile. A 360° excavator shall handle and shape the topsoil at the stockpile site.</p>	
Monitoring	<p>Daily haulage record sheets used in productivity analysis shall provide a second reference to identify which topsoil is stripped from where and where it was placed.</p>	
Emergency, Preparedness and Response	<p>If animal holes of sufficient size to be used by badger or otter are found during vegetation clearance the works in that location shall cease and the Ecological Clerk of Works shall be contacted.</p> <p>If items of potential archaeological value are uncovered then works in that location shall cease and the Archaeologist shall be contacted.</p>	
References	Environmental Statement	

Annex 3.1 Earthworks and Drainage

Procedure for Earthworks and Drainage		CP03
Purpose	<ul style="list-style-type: none"> To minimise the impacts of earthworks on ecological habitats and wildlife in the area. To avoid pollution to water courses. To minimise nuisance to the local community due to deterioration of air quality and the creation of dust, noise and vibration. Minimise the surplus materials arising from earthworks. 	
Responsibility for Control	Environmental Manager	
Procedures	<p>Landowners and authorities shall be informed in advance of commencement of filling at deposition areas.</p> <p>Bunting poles shall be erected around overhead services.</p> <p>Advance pre-earthworks, temporary drainage and dewatering shall be undertaken as required to prevent ingress of water to the earthworks and discharge away from the earthworks. Discharge licenses shall be in place before commencement of any works and appropriate treatment provided prior to discharge to watercourses.</p> <p>No water shall be allowed to pond on the formation layer.</p> <p>When unsuitable material is encountered this shall be removed in accordance with the Site Waste Management Plan.</p> <p>Method statements shall be prepared setting out procedures to monitor and control dust, noise, vibration and deposition on roads.</p> <p>Haul Roads shall be constructed to enable access to the works and movement of the earthworks through the site and to disposal areas.</p> <p>Temporary stockpiles of excavated earth shall be constructed within the lands made available. Stockpiles shall be shaped to ensure rainfall does not degrade the stored material.</p> <p>Drains shall be installed along the toe of embankments in fill areas.</p> <p>Embankments shall be constructed and graded to allow water to shed off the completed earthworks.</p> <p>Embankments shall be sealed at the end of each working shift to avoid ingress of water.</p> <p>The earthworks material shall be placed and compacted in layers to prevent water ingress and degradation of the material.</p>	
Environmental Controls	<p>Temporary drainage or dewatering shall be in place to prevent ingress of water to the earthworks and discharge away from the earthworks.</p> <p>Discharge licenses shall be in place and appropriate treatment provided prior to discharge to watercourses.</p>	
Anticipated Plant and Equipment	<ul style="list-style-type: none"> 50t – 70t primary excavators 20t – 30t excavators Rock breaking and processing equipment 	

Procedure for Earthworks and Drainage		CP03
	<ul style="list-style-type: none"> • Bulldozers • Graders • 30t – 40t articulated dumptrucks • Compaction plant including various rollers • Soil stabilisation plant 	
Monitoring	<p>Daily physical inspection of the site including watercourses, haul roads, mechanical state of all plant and equipment, shall be undertaken to detect any signs of contamination or disturbance.</p> <p>A program to monitor watercourses, air quality, dust, noise and vibration shall be in place during the construction phase.</p>	
Emergency, Preparedness and Response	<p>If animal holes of sufficient size to be used by badger or otter are found during vegetation clearance the works in that location shall cease and the Ecological Clerk of Works shall be contacted.</p> <p>If items of potential archaeological value are uncovered then works in that location shall cease and the Archaeologist shall be contacted.</p> <p>An emergency plan shall be prepared to ensure that any unforeseen release of silty water or other polluted effluents are brought quickly under control and remediated in consultation with the Environment Agency.</p>	
References	Environmental Statement	

Annex 1.4 Procedures for Bridge Construction Across Rivers

Procedure for Bridge Construction Across Rivers		CP04
Purpose	<ul style="list-style-type: none"> • To minimise the impacts on ecological habitats and wildlife in the area during bridge construction. • To minimise noise nuisance. • To prevent environmental pollution incidents. 	
Responsibility for Control	Environmental Manager	
Procedures	<p>Piling for foundations</p> <p>Any vibration shall be limited to those agreed with the local authorities.</p> <p>Spoil shall be removed by excavator to keep the work area clear and when necessary the excavator shall load the spoil to transportation for removal.</p> <p>Ground water within the bore displaced during placing of concrete shall be pumped away to a washout facility set up off the flood plain.</p> <p>Any spills of concrete shall be cleared up to avoid the possibility of cement contaminating water from rainfall or washing down of equipment.</p> <p>Structure base construction</p>	

Procedure for Bridge Construction Across Rivers		CP04
	<p>Prefabrication of formwork shall be undertaken remote from the floodplain and any debris from onsite fixing and fabrication shall be sent in skips for recycling.</p> <p>Deck construction</p> <p>The sub-deck shall have edge upstands, shall be watertight and shall drain to the moats either side of the watercourse.</p> <p>The sub-deck shall provided a second line of protection to catch debris and liquids that would otherwise reach the river. It shall be designed to deflect objects away from the watercourse to a place where they can be collected and disposed of.</p> <p>Until the permanent deck drainage is installed, measures shall be implemented to ensure run-off water from the deck is collected and piped to discharge areas following suitable attenuation and treatment.</p>	
Environmental Controls	<p>Method statements shall be prepared for the control of noise and vibration.</p> <p>Equipment shall be selected to minimise noise and where appropriate with built in noise attenuation.</p> <p>Some construction materials will be subject to a COSHH assessment.</p>	
Anticipated Plant and Equipment	<ul style="list-style-type: none"> • Crawler or all terrain mobile crane. • Vibrating hammer/extractor. • Breakers or crushing plant. • Jack hammering. • Crane pitching. • Vibrating internal poker • Concrete pumps. • Vibrating rolling screed. • Mechanical scabblers. • Blacktop pavers and rollers. 	
Monitoring	<p>Drainage treatment areas used to accept dewatering and drainage water shall be subject to regular maintenance and monitoring.</p>	
Emergency, Preparedness and Response	<p>An emergency plan shall be prepared to ensure that any unforeseen release of silty water or other polluted effluents are brought under control and remediated in consultation with the Environment Agency.</p>	
References	<p>Environmental Statement</p>	

Annex 1.5 Procedures for Demolition

Procedure for Demolition		CP05
Purpose	<p>To avoid pollution to water courses and land during demolition works.</p> <p>To minimise nuisance to the local community cause by deterioration of air quality and the creation of dust, noise and vibration.</p>	
Responsibility for Control	Environmental Manager	
Procedures	<p>A site specific method statement and detailed risk assessment shall be produced prior to commencement of any demolition works.</p> <p>All underground pipes, tanks and services shall be located and marked. All tanks shall be labelled with their content and capacity.</p> <p>Visible signs of leaking tanks or pipes and any signs of contaminated ground or groundwater shall be checked and remedied.</p> <p>Recyclable waste arisings shall be segregated at source.</p> <p>Asbestos and other hazardous materials shall be separated for safe disposal.</p> <p>Licences shall be obtained from the local environmental health officer before any concrete, masonry or other material is crushed on site.</p> <p>Before removing or perforating tanks, all of their contents and residues shall be emptied for safe disposal by a competent operator.</p> <p>Pipes shall be capped or valves closed, to prevent spillage.</p> <p>Measures to avoid noise and vibration nuisance shall be agreed with the Local Planning Authority (LPA) in advance.</p> <p>A method statement shall be prepared to specify how dust control measures (such as damping down) shall be implemented.</p> <p>All runoff from the site shall be controlled. Discharge licenses shall be in place and appropriate treatment provided prior to discharge to watercourses.</p> <p>Dust shall be prevented from escaping from materials in lorries leaving the site.</p> <p>If it is not possible to cover lorries because there are pieces of protruding material, they shall be sprayed with water just before they leave.</p>	
Environmental Controls	<p>Adequate inspection of plant and equipment in operation shall be carried out prior to demolition works to ensure that noise and vibration levels do not exceed those agreed with the local authorities.</p> <p>Suitable spill response materials and emergency instructions shall be available on site and staff shall have been adequately trained.</p>	
Anticipated Plant and Equipment	<ul style="list-style-type: none"> • 360° tracked excavator fitted with breaker • Saw fitted with dust suppressant • 40t tracked crawler crane / 80t mobile if necessary • Stihl saw • Harness and appropriate Personal Protective Equipment (PPE) as 	

Procedure for Demolition		CP05
	necessary	
Monitoring	A program to monitor air quality, dust, noise and vibration shall be put in place during the construction phase.	
Emergency, Preparedness and Response	Emergency response plans will be incorporated into the Contractors' method statements for each individual demolition operation.	
References	Environmental Statement	

Annex 2 – Protected Species Timing Restrictions

Species	Timing Restriction	Working Windows											
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Nesting Birds	Woody vegetation clearance permissible between September - February												
Nesting Kingfishers	Surveys of kingfisher burrows to occur in the summer prior to construction. Closure of kingfisher burrows to occur in winter prior to construction.												
Otter Holts	No time restriction on holt closure. Restrictions will be dependant upon activity. Licence and mitigation to occur up to 1 year in advance of holt closure.												
Badger Setts	Badger licence up to one year prior to sett closure (only allowed 1st July – 30th November) creation of alternative sett up to 1 year prior to original' s closure												
Bat Roosts	Bat licence and creation of artificial roosts up to one year prior to roost closure (Preferred october - April)												
Great Crested Newts	Capture and exclusion for all works occurring in great crested newt habitat would need to occur in the breeding period (February – June) prior to works commencing. Exclusion fencing would need to be installed by February Licence required for trapping and relocation of newts up to one year prior to pond creation of alternative pond up to 2 years prior to original's destruction												

Key

Restricted works	
Restrictions dependant on animal activity	
Recommended works period	

Appendix 5B: Outline Site Waste Management Plan

5.1 Introduction

- 5.1.1 The Site Waste Management Plans Regulations 2008 (the “Regulations”) require all projects with a capital value of greater than £300,000 to have a Site Waste Management Plan (SWMP) in place prior to construction works commencing. The Proposed Scheme will be in excess of this and therefore an SWMP must be prepared.
- 5.1.2 This document is intended to serve as a guide to the Principal Contractor to assist them in the preparation of an amended and more detailed SWMP prior to the commencement of the works. There are therefore elements to be confirmed pending the final design of the works.
- 5.1.3 This Outline SWMP is a live document that will form part of the contractor tender documents. The Principal Contractor will provide a copy of the final SWMP to the client and their representatives prior to works commencing and following all revisions to the SWMP.

5.2 The Site Waste Management Plans Regulations 2008

- 5.2.1 Chapter 6 of the Regulations provide the requirements for the contents of a SWMP namely:
- A SWMP must identify:
 - *The client;*
 - *The principal contractor;*
 - *The person who drafted it.*
 - It must describe the construction work proposed including:
 - *The site location;*
 - *The estimated cost of the project.*
 - It must record any decision taken before the SWMP was drafted on the nature of the project, its design, construction method or materials employed in order to minimise the quantity of waste produced on site.
 - It must:
 - *Describe each waste type expected to be produced in the course of the project;*
 - *Estimate the quantity of each different waste type expected to be produced; and*
 - *Identify the waste management action proposed for each different waste type including re-using, recycling, recovery and disposal.*
 - It must contain a declaration that the client and the principal contractor will take all reasonable steps to ensure that:
 - *All waste is dealt with in accordance with the waste duty of care in the Environmental Protection Act 1990 and the Environmental Protection (Duty of Care) Regulations 1991;*

- *Materials will be handled efficiently and waste managed appropriately.*

5.2.2 Furthermore, as the project value will be greater than £500,000 the following need will also be recorded.

- When waste is removed from the site the principal contractor must record on the SWMP:
 - *The identity of the person removing the waste;*
 - *The waste carrier registration number of the carrier;*
 - *A copy of, or reference to, the written description of the waste required by Section 34 of the Environmental Protection Act 1990;*
 - *The site that the waste is being taken to and whether the operator holds an environmental permit or a registered exemption.*
- As necessary, and at least every 6 months the principal contractor must:
 - *Review the plan;*
 - *Record the types and quantities of waste produced;*
 - *Record the types and quantities of waste that have been*
 - *Re-used*
 - *Recycled*
 - *Sent for recovery*
 - *Sent to landfill*
 - *Otherwise disposed of*
 - *Update the plan to reflect the progress of the project.*
- Within three months of the completion of the project the principal contractor must add to the plan:
 - *Confirmation that the plan has been monitored on a regular basis to ensure that work is progressing according to the plan and that the plan was updated in accordance with the Regulations;*
 - *A comparison of the estimated quantities of each waste type against the actual quantities of each waste type;*
 - *An explanation of any deviation from the plan; and*
 - *An estimate of the cost savings that have been achieved by completing and implementing the plan.*

5.2.3 This document has been prepared using guidance provided in:

- non-statutory guidance for site waste management plans, Defra, 2008;
- The Site Waste Management Plan Template, WRAP; and
- A Simple Guide to Site Waste Management Plans, Netregs.gov.uk.

5.3 Reasons for Preparing a SWMP

5.3.1 There are two main objectives for this SWMP which are:

- to ensure compliance with the Regulations; and
- to promote and maximise resource efficiency through the use of materials in as efficient a manner as possible ensuring that waste is minimised and that opportunities for re-use, recycling and recovery are considered before disposal options are explored.

5.4 SWMP Management

5.4.1 It is the responsibility of the Principal Contractor to carry out the construction of the proposals in accordance with this SWMP and a suitably qualified individual will be responsible for the document and updating it in accordance with the Regulations (see Section 5.2.2).

5.4.2 The following parties in Table 5B.1 **Error! Reference source not found.** have been appointed, or will be appointed at a later date.

Table 5B.1 Principal roles

Role	Individual or party
Client	Stockport Metropolitan Borough Council
Client's Planning Advisor	URS-Scott Wilson
CDM Co-ordinator	Watts International
Client's site representative	To be appointed
Principal Contractor	To be appointed
Subcontractors	To be appointed

5.4.3 Upon appointment the Principal Contractor will be responsible for the preparation of a final SWMP that will build upon the opportunities for landfill diversion and resource efficiency as already identified within this document.

Site Induction

5.4.4 All contractors and personnel on site will be educated in their roles on site and how they need to operated in accordance with the SWMP. Where appropriate the requirements of the SWMP will be built into subcontractors contracts.

5.4.5 The SWMP will be kept at the main site office and will be made available to the client, subcontractors or the Environment Agency on request. The principal responsibilities are outlined in Table 5B.2.

Table 5B.2 Principal responsibilities

Party	Responsibility
Principal Contractor	The Principal Contractor is responsible for the identification and implementation of waste management requirements for their own operations as well as ensuring that all subcontractors operate the same procedures.
Subcontractor	Subcontractors are responsible for ensuring that they are fully briefed in the requirements of the SWMP and for carrying out their works in accordance

	with this plan. Their method statements and risk assessments must demonstrate how this will be undertaken.
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5.5 Waste Arisings

5.5.1 The following main activities that will lead to waste being generated have been identified:

- wastes arising from office and admin functions;
- wastes arising from demolition and excavation;
- wastes arising from construction; and
- wastes arising from plant maintenance.

5.5.2 Table 5B.3 **Error! Reference source not found.** shows what these wastes are, their nature and how they should be managed as part of the works.

Table 5B.3 Predicted waste arisings and management options

Waste Material	EWC Code	Classification	Waste Management Option
Office			
Office general waste	20 03 01	Non-haz	Treatment
Office paper	20 01 01	Non-haz	Recycling
Canteen waste	20 01 08	Non-haz	Composting
Canteen general waste	20 03 01	Non-haz	Treatment
Excavation and demolition			
Vegetation	20 02 01	Non-haz	Exemption on site or disposal for controlled plants (i.e. Japanese Knotweed)
Soil and stones	17 05 04	Non-haz	Reuse on site
Contaminated Soil	17 05 03*	Hazardous	Treatment and disposal
Hardstanding, road surfaces	17 01 01	Non-haz	Reuse on site
Mixed construction and demolition waste	17 09 04	Non-haz	Disposal
Gypsum	17 08 02	Non-haz	Recycling
Construction			
Wood	17 02 01	Non-haz	Segregation and recycling or recovery
Metal	17 04 07	Non-haz	Segregation and recycling
Hard core	17 01 07	Non-haz	Reuse on site
Plastic packaging	15 01 02	Non-haz	Segregation and re-use or recycling
Wood packaging	15 01 03	Non-haz	Segregation and re-use or recycling

Waste Material	EWC Code	Classification	Waste Management Option
Paper and card packaging	15 01 01	Non-haz	Segregation and re-use or recycling
Mixed packaging	15 01 06	Non-haz	Segregation and re-use or recycling
Contaminated packaging	15 01 10*	Hazardous	Treatment and disposal
Oily Water from separators	13 05 08*	Hazardous	Treatment
Plant			
Waste hydraulic oil	13 01 11*	Hazardous	Disposal
Wiping cloths	15 02 02*	Hazardous	Disposal

*Hazardous waste

5.5.3 Table 5B.3 has been prepared based upon the anticipated waste arisings although is unlikely to be a definitive list until further design has been undertaken.

5.6 Excavation Waste

5.6.1 The Client has identified that there is an anticipated shortfall in the cut and fill balance for the works and there is unlikely to be the need to dispose of excavation waste off site.

5.6.2 The Client has previously identified that the material to be excavated is largely glacial till and is considered to be acceptable for re-use on site.¹

General Excavation

5.6.3 In forming embankments and cuttings there will be an excavation of 625,946m³ and the need to fill 748,836m³. This is a shortfall of 122,890m³.

5.6.4 However, these figures do not include for the excavation of material to form drains and hence the shortfall is likely to be less than this. The Principal Contractor will be responsible for calculating this figure as part of their detailed design and presenting it in the SWMP before commencing works.

5.6.5 The Principal Contractor should therefore aim for a 100% target for the re-use of soil and stone materials on site, and where this is not possible, full justification provided in the SWMP.

Topsoil

5.6.6 Stockport MBC has calculated that there is an anticipated topsoil strip of 172,124m³ and a re-soil requirement of 111,780m³. There is therefore a surplus of 60,344m³ of topsoil.

5.6.7 Whilst this topsoil could contribute to the shortfall in the earth balance, topsoil may be better used off site on remediation projects. The Principal Contractor will therefore need to identify which is the preferred option and outline the reasons for the choice.

5.1.1 _____

¹ Ground Investigation Report, February 2011, AECOM

5.7 Hazardous Wastes

- 5.7.1 Hazardous wastes are likely to be produced in small quantities as a result of the Principal Contractor's operations although larger quantities of contaminated soils may be present as identified in paragraph 5.7.46.
- 5.7.2 This SWMP has identified that five potential hazardous waste streams are likely to be produced as a result of the works. These are contaminated soil, contaminated packaging, oily water, waste hydraulic oil and wiping cloths.

Contaminated Soil

- 5.7.3 Chapter 12 (geology and soils) identified that potentially contaminated areas could be present at railway lines at Hazel Grove and Bramhall and at an oil depot and its associated pipelines at Bramhall², and a potentially contaminated historic landfill site at Airport Woodhouse Park (Figure 12.3). All other excavation land has historically been used for agriculture.
- 5.7.4 It is therefore possible that some contaminated land will be identified during the works and provision for management of this will be made in a revised SWMP that is to be prepared by the Principal Contractor prior to the commencement of the works.
- 5.7.5 The Principal Contractor will ensure that these areas are subject to geo-environmental testing prior to excavation to identify whether the material is suitable for re-use on site or whether specialist treatment or disposal is required.

Other Hazardous Wastes

- 5.7.6 Other than contaminated soil, hazardous wastes are only likely to be present in very small quantities resulting from essential plant maintenance, such as oily rags and hydraulic fluids. This will enable them to be confined to the site compound area.

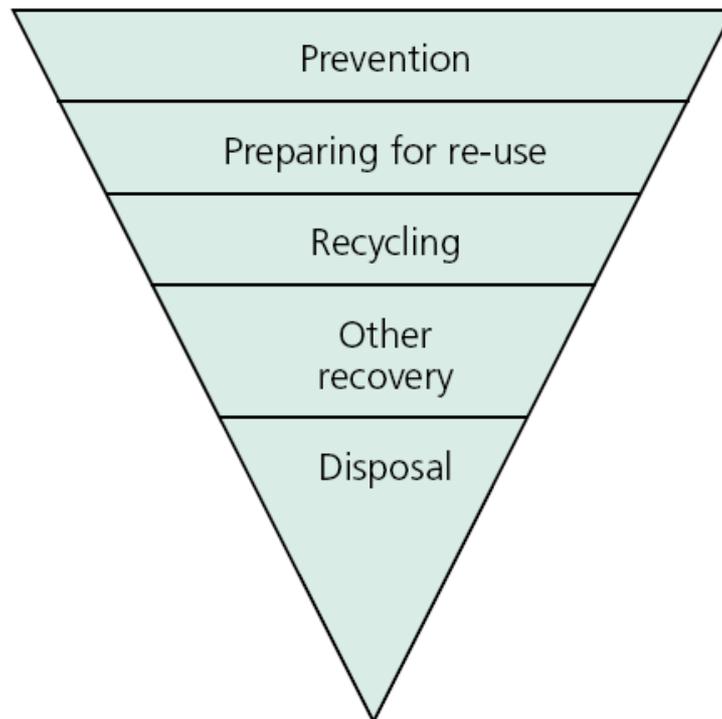
5.8 Waste Minimisation Procedures

- 5.8.1 Table 5B.3 shows the most suitable option for each waste type. The Principal Contractor shall assess prior to works commencing whether they are the most suitable and whether waste can be moved up the waste hierarchy, as shown in **Error! Reference source not found.** below

5.1.1 _____

² Geo-environmental Interpretative Report, October 2005, Faber Maunsell

Figure 5B.1 The Waste Hierachy



- 5.8.2 Prior to the works commencing the Principal Contractor will identify if there are any additional wastes that they will produce and provide an update to Table 5B.3. They will also provide an estimate of the quantity of waste that is expected to be generated on the Waste Management Proforma A (Table 5B.4) and the preferred option for management.
- 5.8.3 Table 5B.4 is provided as a template for the Principal Contractor to work with when preparing the final SWMP prior to works commencing. These should be updated upon final design by the Principal Contractor when the scope of the works is better understood.
- 5.8.4 As the works proceed the Principal Contractor will be responsible for monitoring the generation of these wastes and ensuring that they are managed in as sustainable a manner as possible.
- 5.8.5 If a waste is identified during the construction works that had not been previously identified then the waste will be added to Waste Management Proforma A and a suitable management option identified.

5.9 Waste Management Requirements

- 5.9.1 The Principal Contractor will prepare a waste management area as part of their compound to facilitate the segregation of wastes. This area should be delineated and separate from where new materials are stored.
- 5.9.2 Not all wastes will be brought to the compound for separation and storage as the greatest volume of waste is likely to be soil and stones that will be re-used on site in landscaping and therefore disposed of under an exemption. However, for those wastes that will be managed off site by a subcontractor it is recommended that these are managed in a specified area that

will allow similar wastes to be segregated, facilitating recycling and reducing the need for off site disposal.

5.9.3 The following are required:

- office paper recycling to be provided;
- the Principal Contractor shall identify a number of waste management contractors that are suitably experienced and competent for the removal of waste from site. The Principal Contractor will prepare a database of these contractors prior to the commencement of works, along with their Waste Carrier Licences, so that they can be called upon immediately should the need arise. <http://www.wastedirectory.org.uk/> can be used to source appropriate companies; and
- other recycling in the admin buildings to be provided as appropriate.
- soils and stones will be used wherever practicable in the earth balance of the works to avoid the need for off site disposal;
- construction materials will be accurately measured prior to works commencement to ensure that unnecessary materials are not purchased;
- the packaging that materials are delivered in will be considered as part of any procurement to ensure that excessively packaged materials are not brought to site; and
- packaging will be re-used wherever possible e.g. wooden pallets will be taken away from site by the delivery company (except when broken) for re-use and will therefore not be classed as a waste to be managed.

5.10 Reviewing the Plan

- 5.10.1 In accordance with the Regulations the Principal Contractor will be responsible for reviewing the SWMP at least every six months, or more frequently if appropriate.
- 5.10.2 The Principal Contractor will also be responsible for completing the SWMP upon completion of the works in accordance with the Regulations. The Principal Contractor will use any deviation from the plan to guide and inform the preparation of SWMP for future schemes.

Table 5B.4 Waste Management Proforma A

Types of waste	EWC Code	Quantity (specify volume or tonnage e.g. m ³ , kg, T, number of containers)														Site and Carrier reference		WTN Complete?
		Reused				Recycled				Recovered		Disposal						
		On site		Off site		On site		Off site		Off site		Landfill		Other		Waste Site	Waste Carrier	
Target (T), Achieved (A)		T	A	T	A	T	A	T	A	T	A	T	A	T	A			
Inert																		
Soil and Stones	17 05 04	737,726 tonnes		60,344 tonnes														
Hard core	17 01 07			15,000 tonnes				30,000 tonnes										
Non-hazardous																		
Plastic Packaging	15 01 02					5 tonnes												
Vegetation	20 02 01							10,000 tonnes				XXX tonnes						
Mixed Packaging	15 01 06							10 tonnes										
Wood Packaging	15 01 03				10 tonnes			5 tonnes										
Paper and Card Packaging	15 01 01							5 tonnes										
Plastic Packaging	15 01 02							15 tonnes										
Wood	17 02 01							30 tonnes										
Metal	17 04 07							5 tonnes										
Mixed demolition waste	17 09 04											150 tonnes						
Office general waste	20 03 01									100 tonnes								
Office Paper	20 01 01							5 tonnes										
Canteen waste	20 01 08							10 tonnes										
Hazardous																		
Contaminated Soil	17 05 03*											4,000 tonnes						
Waste hydraulic oil	13 01 11*									50kg								
Wiping Cloths	15 02 02*									15kg								
Oily water from separators	13 05 08*													2m ³				
Contaminated Packaging	15 01 10*																	

Types of waste	EWC Code	Quantity (specify volume or tonnage e.g. m ³ , kg, T, number of containers)														Site and Carrier reference		WTN Complete?
		Reused				Recycled				Recovered		Disposal						
		On site		Off site		On site		Off site		Off site		Landfill		Other		Waste Site	Waste Carrier	
T	A	T	A	T	A	T	A	T	A	T	A	T	A					
Target (T), Achieved (A)																		
Performance score (%)																		

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