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Level 2

Contract Requirements Environment

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4	October 2002	Revised to apply to all works and design contracts,
5	April 2004	Company Reorganisation
6	December 2011	Revised to apply to service contracts

Compliance

This Network Rail standard is mandatory and shall be complied with by Network Rail and its contractors if applicable from 03/12/2011.

When this standard is implemented, it is permissible for all projects that have formally completed GRIP Stage 3 (option Selection) to continue to comply with the Issue of any relevant Network Rail Standards current when GRIP Stage 3 was completed and not to comply with requirements contained herein, unless stipulated otherwise in the scope of this standard.

Reference documentation

http://www.networkrail.co.uk	Network Rail Sustainability Policy
http://www.networkrail.co.uk	Network Rail Sustainability Statement
NR/L1/INI/GRIP	Governance for Railway Investment Projects – Policy Manual
NR/L3/ENV/044	Track Maintenance, renewal and alteration – Used Ballast Handling.
NR/L3/INI/CP0050	Environment Performance Indicators
NR/L2/MTC/006	Maintenance and Contents of the National Hazard Directory.
NR/L2/ENV/004	Waste Management Standard
NR/L2/TRK/5201	Management of Lineside Vegetation
NR/L3/MTC/MGO194	Communicating with the Public
NR/L3/MTC/SMF351	Community Impact Assessment Form
NR/L2/INV/002	Accident and Incident Reporting and Investigation

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Supply

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1 Purpose

Designers, Suppliers and Contractors need to meet this Standard in order to demonstrate compliance with Network Rail's Sustainability Policy and to assist Network Rail in meeting its environmental commitments, including our support of the Waste Resource Action Programme (WRAP) Halving Waste to Landfill Construction Commitment.

2 Scope

This standard is mandatory for all Network Rail Design, Services or Works Contracts/Suppliers.

3 Sub-contractors

The Designer/Supplier/Contractor shall include at tender stage, and throughout implementation, the requirement for any sub-contractors to comply with this standard.

The sub-contracting of any part of the Contract shall not absolve the Designer/Supplier/Contractor of their responsibilities for meeting the requirements of this document.

4 Definitions

Best Practicable Means (BPM)

In this expression "practicable" means reasonably practicable having regard among other things to local conditions and circumstances, to the current state of technical knowledge and to the financial implications.

BREEAM

Building Research Establishment Environmental Assessment Method.

CEEQUAL

Civil Engineering Environmental Quality Assessment.

Competent Person

A competent person has the required experience and qualifications to undertake the requirements of their responsibilities.

Credibly Certified Timber

The World Wildlife Foundation-Global Forest Trade Network has established a definition of credible certification that schemes must meet in order to be deemed truly sustainable. At the time of publication, only Forest Stewardship Council (FSC) certification meets the definition.

Design

For the purpose of this document, Design comprises any design of a new, or change to an existing, physical asset.

Employer's Representative

The key point of contact within Network Rail responsible for managing and delivering the contract. This may also include the contract manager, project manager, business support manager or asset manager.

Environment Management Plan (EMP)

A plan that details how the environment risks and opportunities of the works are managed including meeting environment requirements and any consents, permissions and planning considerations.

Environment Performance Indicators (EPIs)

Quantifiable measures used to define and measure progress towards environmental target and objectives. EPIs can also be used as a performance management and improvement tool.

Environment Incident

An unplanned or unforeseen event affecting the environment. Environment incidents include unplanned release of emissions to land, water and air including noise/vibration and dust, and unplanned events that have the potential to impact water receptors, species, habitats, protected buildings and heritage sites.

Environment Impact

The effect of an element of the work on the environment (positive and negative).

Environment Risk

The likelihood of an Environment Impact occurring and a measure of the magnitude of the impact (positive and negative).

Environment Risk Assessment (ERA)

A systematic assessment of the likelihood and magnitude of environmental impacts resulting from activities, products, services or works (positive or negative).

Environment Requirements

All legal and other environment requirements applicable to the design, services or works, including the requirements in this document and the Network Rail Sustainability Policy and Statement.

GRIP

NR/L1/INI/PM/GRIP - Governance for Railway Investment Projects. Network Rail's management and control process for delivering Projects on the Operational Railway

Hazardous Materials

Materials with hazardous properties as defined on material safety data sheets (such as oils, pesticides, refrigerant gases, asbestos containing materials and polychlorinated biphenyls).

Incident Response Plan (IRP)

A plan that describes how the Supplier/Contractor shall respond to environment incidents.

LEED

Leadership in Energy and Environmental Design.

Minimise

In the context of this document, where it is a requirement to 'minimise' this is to minimise as far as reasonably practical.

Maximise

In the context of this document, where it is a requirement to 'maximise' this is to maximise as far as reasonably practical.

Reasonably Practicable

Weighing the risk of an environment impact against the cost and time associated with the mitigation measures needed to control it. Each case is judged on its own merits.

Reduce

In the context of this document, where it is a requirement to 'reduce' this is to 'reduce' as far as reasonably practical.

Services

For the purpose of this document, Services are not Design or Works, but involve one or more of the activities detailed in below:

a) the generation or handling[1] of waste

b) the handling of hazardous materials

c) the generation of waste water requiring discharge authorisation

d) the generation of noise or vibration with the potential to cause disturbance to human or ecological receptors

e) the generation of dust, smoke or noxious fumes

f) activities with the potential to cause disturbance of, or damage to, protected sites or species

g) activities with the potential to impact upon the setting or physical fabric of a listed building or scheduled monument

h) other activities which, in the opinion of the Employer's Representative, have the potential to give rise to adverse environment impacts.

Services which would typically meet this definition include services for: waste collection and disposal, vegetation management (including weed spraying), facilities management, equipment maintenance, cleaning (including graffiti and litter removal) and spill response.

NOTE 1 Handling includes transportation, physical handling, decanting, mixing/diluting and applying.

Works

For the purpose of this document, Works is defined as any physical works that result in a new or change to a physical asset.

World Wildlife Foundation Global Forest Trade Network (WWF-GFTN)

An initiative established by WWF to help to make sure that forests are independently and credibly certified - a guarantee that the forests are well managed and that their products come from legal and sustainable timber harvests. As a member of WWF-GFTN Network Rail is committed to reducing the risk of illegal forest products entering the supply chain and increasing the amount of sustainable timber used in works.

5 Environmental Management

5.1 General

All Designers/Suppliers/Contractors shall comply with all relevant legal and other requirements including the Network Rail Sustainability Policy, Network Rail Standards and any other permits/consents/licenses or obligations related to the work.

All contractors/suppliers shall manage the environmental risks and opportunities associated with the contracted works.

For design services, the requirements of this standard apply to managing the impacts associated with the design deliverables.

5.2 Environmental Management Process for Governance of Railway Investment Projects (GRIP) Contracts

5.2.1 General

Contracts working to the requirements outlined in the GRIP standard NR/L1/INI/PM/GRIP, applicable to all enhancement and renewal projects that affect the operational railway or are carried out in a High Street Environment where Investment Approval is required, as defined within IR01, Investment Regulations, shall comply with the environmental management arrangements outlined in Table One and described in 5.2.2 to 5.2.4.

Table 1. GRIP Contracts Environment Management Requirements

Contract Type	Environment Risk Assessment (Clause 6)	Environment Management Plan (EMP)	EMP to include Clause 7 requirements	EMP to include Clause 8 requirements	EMP to include Clause 9 requirements	EMP to include Clause 10 requirements	Incident Response Plan (Clause 11)
Design	✓	Design Environment Management Plan	✓	✓			
Design and Build	✓	Design and Works Environment Management Plan	✓	✓	✓		✓
Works	✓	Works Environment Management Plan	✓		✓		✓
Service Works	✓	Service Works Environment Management Plan	✓			✓	✓

5.2.2 Risk Assessment

All contracts shall complete an Environment Risks Assessment (ERA), as detailed in Clause 6.

5.2.3 Environment Management Plan

All contracts shall comply with the environmental requirements in clause 7 and depending on the scope of the contract, the requirements of clause 8 for design contracts, clause 9 for physical works contracts and clause 10 for service contracts. Design and build contracts are to complete clauses 8 and 9. All contacts will produce an Environmental Management Plan (EMP) as the documented system detailing how these requirements will be eliminated/mitigated and managed.

Design contracts shall produce a Design EMP, Works contracts shall produce a Works EMP and service contracts shall produce a Service EMP. Design and build contracts shall produce both a Design and Works EMP.

A mandated template for the framework of the EMP is provided in Appendix B.

Example:

Design Contract identifies Waste, Ecology and Noise as potential risks in the Environment Risk Assessment. The designer shall produce a Design EMP that details how all the management requirements in Clause 7 and the Waste, Ecology and Noise requirements in Clause 8 shall be met.

The EMP can refer to existing company processes and standards providing these are sufficient to meet the contract requirements and manage the identified risks/opportunities. The EMP can be integrated with other management plans (e.g. safety, quality, competence).

The EMP shall be submitted to the Employer’s Representative for acceptance within 28 days of Contract award. For work where the Contract period is less than 28 days the documentation shall be submitted within 7 days. If the EMP is not accepted by the Employer’s Representative, the Designer/Supplier/Contractor shall resubmit an updated plan within 10 days of receiving comments. The EMP shall be resubmitted until accepted by the Employer’s Representative. Physical works cannot commence until the ‘physical works EMP has been formally accepted by the Network Rail Employer’s Representative’.

The appropriate process and timescales for up-dating the EMP shall be agreed with the Employer’s Representative and documented within the EMP. The Designer/Supplier/Contractor shall provide any updates to the Employer’s Representative for acceptance.

5.2.4 Incident Response Plan

All GRIP Works and Service Contracts shall submit an Incident Response Plan, the requirements of which are detailed in Clause 11.

5.3 Environmental Management Process for Non-GRIP contracts

5.3.1 Risk Assessment

All non-GRIP contracts shall complete an Environment Risks Assessment (ERA), the requirements of which are detailed in Clause 6. The ERA shall be submitted to the Employer's Representative for acceptance.

5.3.2 Environment Management

5.3.2.1 Management Controls

All non-GRIP contracts shall comply with the management requirements in Clause 7, and the requirements Clauses 8 (Design), 9 (Works), and 10 (Services) as appropriate to risks the contract. The Employer's Representative may request evidence of compliance during the contract, for example, through audits.

5.3.2.2 Control Measures

Where the ERA identifies a risk/opportunity the Designer/Supplier/Contractor shall put in place appropriate control measures to manage the risk. These may be stand alone procedures or form part of method statements/work package plans etc.

The Employer's Representative may request evidence of compliance to risk control measures during the contract, for example, through audits.

Example:

A Service contractor identifies ecology as a risk in the Environment Risk Assessment. The supplier shall comply with all the requirements in Clause 7, the ecology section of Clause 10 and implement controls to manage the ecology risks associated with the contract.

5.3.3 Incident Response Plan

All Works and Service Contracts shall have in place an Incident Response Plan, the requirements of which are detailed in Clause 11.

6 Environment Risks Assessment

6.1 Environment Risk/Opportunities

All Designer/Supplier/Contractors shall actively seek details of environment risks and opportunities from the Employer's Representative during the course of the Contract including any information provided in the Invitation to Tender documentation. This shall include information in the hazard directory, GIS portal and contaminated land database.

The Designer/Supplier/Contractor shall use the Network Rail National Hazard Directory to help identify site based risks.

6.2 Environment Risk Assessment (ERA) minimum requirements

All Designers/Suppliers/Contractors shall undertake and document an Environment Risk Assessment (ERA). The ERA shall identify and assess the environment risks and opportunities associated with:

a) Compliance with the Network Rail Sustainability Policy, standards and requirements of this document.
   i. Design contractors shall include compliance to the environmental requirements of Clause 8.
   ii. Works contractors shall include compliance to the requirements of Clause 9.
   iii. Service contractors shall include compliance to the requirements of Clause 10.
b) Compliance with all relevant legal requirements,
c) Compliance with any other environment obligations related to the Contract.

The ERA shall:

a) Include all the activities to be carried out for the contracted services/work
b) Identify the potential risks/opportunities of the activities or design to the environment.
c) Include, but not be limited to, an assessment of the risks and opportunities for the following impact areas:
   i. air quality,
   ii. archaeology and cultural heritage,
   iii. contaminated land,
   iv. ecology,
   v. energy,
   vi. herbicide/pesticide application,
   vii. landscape,
   viii. lighting,
   ix. materials use,

x. noise and vibration,

xi. public highways,

xii. waste,

xiii. water protection and consumption.

d) Include the costs, programme and social/reputational impacts of the risk. The Community Impact Assessment Form (NR/L3/MTC/SMF351) shall be used to help assess impacts on the community.

e) Include risks that could arise in the future life cycle stages of the service/works, once the Contract is complete.

f) Rank the level of significance of the risks to allow prioritisation of management controls. The definition of a significant risk shall be agreed with the Employer's Representative and shall depend on legal and other requirements of the contracted works.

g) Identify those who are affected by the risk, considering the impact on the Designer/Supplier/Contractor, Network Rail, workers, users, neighbours, etc.

h) Identify the owner of the risk. The risk shall be owned by the Designer/Supplier/Contractor unless agreed otherwise with the Employer's Representative. All works associated with risk mitigation shall be owned by the Designer/Supplier/Contractor unless agreed otherwise with the Employer's Representative.

i) Reference the existing or proposed control measures to manage the risk.

An example Environment Risk Assessment is provided in Appendix A.

6.3 Timescales

The ERA shall be submitted to the Employer's Representative for acceptance within 28 days of contract award. For work where the Contract period is less than 28 days the documentation shall be submitted within 7 days. If the ERA is not accepted by the Employer's Representative, Designer/Supplier/Contractor shall resubmit an updated ERA within 10 days of receiving comments. The ERA shall be resubmitted until accepted by the Employer's Representative. The Designer/Supplier/Contractor shall not commence works until the ERA has been accepted by the Employer's Representative.

The appropriate process and timescales for up-dating the ERA shall be agreed with the Employer's Representative and documented. The Designer/Supplier/Contractor shall provide any updates to the Employer's Representative for acceptance.

6.4 Framework and Programme Works

For framework contracts and generic programme works such as weed control it is acceptable for the ERA to be applied to the overarching framework/programme; however, the Designer/Supplier/Contractor shall detail what controls are in place to identify and manage risks for each site/piece of work.

6.5 Alliance contracts

For alliance contracts, it is acceptable for the ERA to be undertaken on behalf of a group or all suppliers and contractors in the alliance. Any such ERA, which covers

more than one Designer/Supplier/Contractor, shall detail the responsibilities of each Designer/Supplier/Contractor in complying with this contract document.

7 Environment Requirements – All Contracts

All contracts shall comply with the requirements set out in 7.1 to 7.8.

For Designers/Suppliers/Contractors following the GRIP process compliance with these requirements shall be detailed in the Environment Management Plan. For all other Designers/Suppliers/Contractors, compliance may be achieved through other controls, as appropriate, for example inclusion in work package plans and method statements.

7.1 Requirements and consents

The Designer/Supplier/Contractor shall:

a) Maintain a record of environment consents held and required including the details of any conditions, and the responsibility of discharging their requirements.

b) Maintain a programme for applying for and obtaining consents in line with the works programme.

c) When instructed by the Employer's Representative, become holder of any existing permissions and consents for the duration of the contract.

d) When instructed by the Employer's Representative, transfer permissions and consents to Network Rail (or any persons nominated).

e) Provide copies of any permits/consents/licenses to the Employer's Representative within 7 days of receiving them.

7.2 Objectives and targets

If not already agreed prior to contract award, the Designer/Supplier/Contractor shall:

a) Agree any environment objectives, targets and Environment Performance Indicators (EPIs) with the Employer's Representative within 28 days of contract award. These shall be appropriate to the contracted works.

b) For Investment Project contracts, collect and monitor the EPIs required by Network Rail Standard NR/L3/INI/CP0050.

c) Report progress to the Employer's Representative against all the agreed objectives, targets and EPIs, periodically or as otherwise agreed with the Employer's Representative.

d) Make available, upon request, all data sources used to verify the accuracy of reported data.

7.3 Roles and responsibilities

The Designer/Supplier/Contractor shall:

a) Retain suitably qualified and competent personnel to support the delivery of the environment requirements, including a nominated lead on environment management. The Designer/Supplier/Contractor shall provide evidence that personnel are competent for their roles and responsibilities.

b) Notify the Employer's Representative of any intended changes in personnel with core environmental responsibilities before they occur.

7.4 Competence, training and awareness

The Designer/Supplier/Contractor shall:

a) Assess the competency and training requirements for all personnel relating to the environment requirements, for example through the production of an Environment Competency and Training Plan.

b) Provide training and awareness of the specific contract risks and opportunities to directly employed and subcontracted employees, applicable to their roles and responsibilities. This shall include managing environment risks and controls through the work package plan process, method statements and task briefing documents.

c) Maintain records of competency requirements and training. These shall be made available upon request by the Employer's Representative.

7.4.1 Internal Communication

The Designer/Supplier/Contractor shall:

a) Communicate the ERA and associated controls to directly employed and subcontracted employees. Additional and ongoing communication of environmental performance and requirements shall be provided to direct and subcontracted employees, appropriate to their roles and responsibilities.

b) Display a copy of the Designer/Supplier/Contractor's Environment Policy and other appropriate environmental information on the notice board in all fixed and temporary locations controlled by the Designer/Supplier/Contractor.

c) Use site inductions, the work package plan process, method statements and task briefing documents to communicate environment requirements as appropriate.

d) Nominate a person with responsibility for maintaining internal communication and for communicating any changes in policy, procedure or legislation, including changes to the material on display.

7.5 External Communication and Managing Lineside Neighbours

7.5.1 Communication with Network Rail

The Designer/Supplier/Contractor shall organise a progress meeting with the Employer's Representative every 28 days, or at an interval otherwise agreed, including an update on risk mitigation, EPIs, progress against targets and a review of any audit/assurance monitoring findings.

7.5.2 Statutory Authorities and Non Governmental Organisations (NGOs)

The Designer/Supplier/Contractor shall:

a) Not enter into any planned discussions or consultations, make any applications or agreements with a statutory authority or NGO without agreement from the Employer's Representative. Where work is within 200

meters of residential properties or business premises, may impact Network Rail's reputation or may impact passenger or freight services the agreement of the local Network Rail community relations representative shall also be obtained.

b) Maintain a record of discussions held with statutory authorities.

c) In the event of an unplanned approach from a statutory authority the Designer/Supplier/Contractor shall make every reasonable effort to contact and inform the Employer's Representative and supply a record of the discussed as soon as is practicable.

7.5.3 Other Stakeholders (e.g. lineside neighbours, interest groups etc)

The Designer/Supplier/Contractor shall:

a) Comply with Network Rail Standard 'Communicating with the Public' (NR/L3/MTC/MGO194).

b) Identify all other affected stakeholders as part of the environmental risk assessment.

c) Include, as part of the risk assessment, the manner in which affected Statutory Authorities, residents, land owners, schools, hospitals and others are affected by the works. The Community Impact Assessment Form (NR/L3/MTC/SMF351) shall be used for this assessment.

d) Agree with the Employer's Representative how those affected by the works shall be consulted, informed and mitigated of the consequences of the work. Where work is within 200 meters of residential properties or business premises, may impact Network Rail's reputation or may impact passenger or freight services the agreement of the Network Rail local community relations representative shall also be obtained.

e) Not enter into any financial agreements or compensation without first agreeing these arrangements with Network Rail Government and Corporate Affairs.

7.5.4 Site work

For site works the Designer/Supplier/Contractor shall:

a) Nominate a person with responsibility for community relations on site for briefing all staff about acceptable conduct, for overseeing the delivery of notification letters and providing the Network Rail community relations representatives with any information they require in relation to the works.

b) Provide advance notification to those most affected by particular environmental impacts including Local Authorities. Notification shall be in compliance with Network Rail's procedure for notification in advance of works taking place (NR/L3/MTC/MGO194).

c) Direct all enquiries and complaints from the general public to Network Rail's 24-hour helpline service (08457 11 41 41).

d) Inform the Employer's Representative of any complaints made directly to the Designer/Supplier/Contractor as soon as practicable, but within 12 hours of the complaint receipt.

7.6 Records and documents

The Designer/Supplier/Contractor shall:

a) Provide a copy of all licences, consents, permits or permissions granted to the Contractor to the Employer's Representative within 7 days of receipt.

b) Provide a copy of all environment surveys to the Employer's Representative within 7 days of receipt.

c) Provide the Employer's Representative, on completion of the contract, with final versions of the Environment Risk Assessment, Environment Management Plan, operational controls and all other documents that record the environment risks, best practice example, mitigation measures, commitments, environment incidents, and other relevant information for inclusion in the Health and Safety File/O&M manuals.

7.7 Environment Hazard Notification Form

Network Rail operates a National Hazard Directory, available online at http://connect/delivery/Maintenance/NationalSpecialistTeams/IMCProcedures/NationalHazard.aspx. In the event of identifying an Environment Hazard on site, the Designer/Supplier/Contractor shall report the hazard in accordance with Standard NR/L2/MTC/006 'Maintenance and Contents of the National Hazard Directory'. The Designer/Supplier/Contractor shall refer to Standard NR/L2/MTC/006 for the definition of reportable Environment Hazards.

The contractor shall also provide information relating to site specific environment risks to the employer's representative for inclusion onto the GIS portal for future reference.

8 Specified Environmental Impact Areas - Design Contracts

8.1 General Environment Management (Design)

The designer shall review the benefits (financially and environmentally) of environment risk reduction/opportunities and agree proposed options for inclusion in the design with the Employer's Representative.

Where it is a contract requirement, the Designer shall agree with the Employer's Representative how environment performance data is to be collected and its accuracy verified to support the gaining of any award including LEED, BREEAM and CEEQUAL.

8.2 Air Quality (Design)

The designer shall include Best Practicable Means to minimise emissions to air. This shall include but not be limited to;

a) Designing to minimise emissions to air during construction and operational phases including dust, smoke, particulates, fumes and smells.

b) Designing to reduce the impact on receptor sites from emissions for air where elimination of the impacts is not reasonably practicable.

8.3 Archaeology and Cultural Heritage (Design)

The designer shall minimise disturbance to archaeology and cultural heritage. This shall include, but not be limited to;

a) Identifying any sites of potential archaeological or cultural heritage interest during the design process, including consent requirements.

b) Designing to minimise the disturbance of sites of archaeology or cultural heritage interest.

c) Designing to protect sites of archaeology or cultural heritage interest from damage.

8.4 Contaminated Land (Design)

The designer shall:

a) Identify potential areas of contaminated land.

b) Design to minimise disturbance of contaminated land and the introduction of pollution pathways.

c) Where disturbance of contaminated land cannot be avoided, the designer shall design to remediate or remove contaminated land. Landfill shall only be used if other remediation options (e.g. on-site treatment, off site treatment) are not reasonably practicable.

8.5 Ecology (Design)

The designer shall protect and where possible enhance the existing biodiversity. This shall include, but not be limited to;

a) Assessing potential to contribute to the Network Rail Sustainability Policy goals and SSSI habitat targets.

b) Designing to minimise disturbance of habitats and species, for example, through reducing loss of habitat.

c) Undertaking appropriate surveys for protected species, protected habitats and invasive/injurious weeds. If protected/invasive species and habitats are identified include appropriate protection/mitigation measures in the design.

d) Agree with the Employer's Representative what actions shall be taken to enhance the ecology through design, where practicable, for example, through planting schemes that include appropriate Local Biodiversity Action Plan priority habitats and species.

The Designer shall liaise with the local Community Relations representative with regard to the extent of any vegetation clearance.

8.6 Energy (Design)

The Designer shall agree with the Employer's Representative appropriate assessment and recording of predicted energy consumption and/or $CO_{2(e)}$ emissions over the whole life of the project (construction, operation, decommissioning, and demolition).

The design shall use appropriate low energy/ $CO_{2(e)}$ solutions for the whole life of the project (construction, operation, decommissioning, and demolition). This shall include, but not be limited to:

- Compliance and contribution to Network Rails Sustainability Policy goal and carbon reduction target.
- Use of insulation where appropriate.
- Use of a building management systems where appropriate.
- Optimising sunlight penetration into buildings and open spaces and only using artificial lighting when there is insufficient natural light and/or safety is a consideration.
- Assessing the potential use of renewable energy sources where appropriate.
- Agree with the Employer's Representative mechanisms to enable actions identified in the design phase to be implemented during the construction phase.

8.7 Landscape (Design)

The design shall manage adverse visual impact and enhance the existing landscape. This shall include, but not be limited to;

a) Designing to minimise adverse impact on the landscape through the design including locating visually prominent infrastructure sensitively and away from residential properties where reasonably practicable.

b) Designing to protect the existing landscape through, for example, retaining original landscape features and safeguarding trees, soil and water conditions

c) Designing to enhance or introduce new public amenity and landscape features.

The Designer shall liaise with the local Community Relations representative with regard to the extent of any vegetation clearance.

8.8 Lighting (Design)

The design shall apply Best Practicable Means to reduce light intrusion. This shall include, but not be limited to:

a) Designing to avoid the use of lighting or specifying the appropriate lux levels to minimise disturbance.

b) Specifying directional lighting to avoid intrusion.

c) Designing to avoid the disturbance of protected species e.g. bats through lighting design.

8.9 Materials (Design)

The design shall minimise the use of non-sustainable resources. This shall include, but not be limited to;

a) Designing solutions to reduce material consumption.

b) Designing to minimise the requirement for primary materials such as aggregates.

c) Identifying potential for reuse of products or materials within the project and via NDS.

The design shall minimise the specification of materials that:

a) Are a risk to the Network Rails Sustainability Policy goals and sustainable materials target.

b) Contain substances known to contribute to stratospheric ozone depletion or with the potential to contribute to global warming

c) Have a hazardous nature or include hazardous materials where viable alternatives exist

Network Rail is a member of the WWF Global Forest Trade Network (GFTN) and are committed to reducing the risk of illegal timber entering our supply chain and improving the amount of sustainable timber used in our works. The design shall specify the use of credibly certified (as defined by WWF-GFTN) sources of timber for permanent and temporary use unless otherwise agreed with the Employer’s Representative. A record shall be kept of this decision.

8.10 Noise and Vibration (Design)

The Design shall apply Best Practicable Means to manage noise and vibration. This shall include but not be limited to,

a) Appropriate assessment of the noise and vibration impact from the design.

b) Designing to minimise construction and operational noise and vibration impacts through the design.

c) Designing to reduce the impact on receptor sites from noise and vibration where elimination of the impacts is not reasonably practicable.

8.11 Waste (Design)

The Designer shall comply with the waste management legislation including the Site Waste Management Plan Regulations 2008.

Network Rail is committed to the WRAP Halving Waste to Landfill Commitment. Designers are required to actively seek ways of reducing the volume of waste produced through the design.

The Designer shall assess and document the volume of waste likely to be produced during works by waste type and assess how much of each waste type could be reused, recycled, recovered or disposed of.

The design shall minimise the waste produced by the work. This shall include, but not be limited to;

a) Contribution to Network Rails Sustainability Policy goal and waste management targets.

b) Integrate ‘designing out waste’ into the design process, for example, using the WRAP Designing out Waste tool (http://www.wrap.org.uk).

c) Agree with the Employer’s Representative mechanisms to enable actions identified in the design phase to be implemented during the construction phase.

The design shall maximise opportunities for re-use, recycling and recovery. This shall include, but not be limited to;

a) Assessment of end-of-life options for materials to minimise the need for disposal.

b) Specification of recycled and recyclable materials.

c) Assess the opportunity to use the CLAIRE ‘Definition of Waste: Development Industry’ Code of Practice (http://www.claire.co.uk) for excavated materials.

d) Designing appropriate waste management facilities for the operational phase, for example, inclusion of space for recycling area.

8.12 Water (Design)

The design shall minimise construction and operational water consumption. This shall include, but not be limited to;

a) Designing to reduce operational water consumption including specifying water efficient plant and equipment where appropriate.

b) Designing to use the appropriate quality of water for use in construction/operation to reduce the use of potable water for non-potable uses; including harvested water, grey water recycling, abstraction, tanker delivery and mains supply.

The design shall protect and enhance the existing water environment. This shall include, but not be limited to;

a) Assessing the risk to potential sensitive water receptors in the risk assessment.

b) Identifying any drains, springs or waterways that may be disturbed by the work and include appropriate mitigation measures in the design.

c) Designing appropriate operational pollution prevention measures.

d) Reducing the risk of emissions to water during the construction phase through design.

e) An assessment of the use of sustainable drainage systems

9 Specific Environmental Impact Areas – Works Contracts

9.1 General Environment Management (Works Contracts)

The Contractor shall include all risks and opportunities identified during the design stage in the risk assessment.

The Contractor shall review the benefits (financially and environmentally) of environment risk reduction/opportunities and agree proposed options for inclusion in the works.

Where it is a contract requirement, the Contractor shall agree with the Employer's Representative how environment performance data is to be collected and its accuracy verified to support the gaining of any award including LEED, BREEAM and CEEQUAL.

9.2 Air quality (Works)

The Contractor shall implement Best Practicable Means to eliminate, reduce or mitigate emissions to air including plant and vehicle emissions, dust, smoke, particulates, fumes and smells. This shall include, but not be limited to;

a) Minimising emissions to air, including;

- switching off engines when not in use,
- wash or clean vehicles effectively before leaving the site
- covering loads entering and leaving site
- planning site layout so that machinery and dust causing activities are located away from sensitive receptors
- using water as dust suppressant where applicable
- keeping stockpiles covered where possible and for the shortest possible time
- using ultra low sulphur diesel equivalent fuel at all sites whenever possible

b) Reducing the impact on receptor sites from emissions to air where elimination of the impact is not reasonably practicable, for example erecting effective barriers around dusty activities or the site boundary.

The Contractor shall agree an appropriate air quality monitoring programme with the Employer's Representative.

9.3 Archaeology and Cultural Heritage (Works Contract)

The Contractor shall protect the existing archaeology and cultural heritage. This shall include, but not be limited to;

a) Identification of sites of potential archaeological or cultural heritage interest affected by the work, including consent requirements

b) Minimising the disturbance of sites of archaeology or cultural heritage interest.

c) Protecting sites of archaeology or cultural heritage interest from damage.

In the event of an unexpected discovery of archaeological remains on site, the Contractor shall inform the Employer's Representative immediately and protect the remains until agreement is reached with the Employer's Representative and appropriate Statutory Bodies on the methods for continuance of the works.

9.4 Contaminated Land (Works Contract)

The Contractor shall;

a) Identify potential areas of contaminated land affected by the works.

b) Minimise disturbance of contaminated land and avoid the introduction of pollution pathways.

c) Remediate/Remove where necessary. Landfill shall only be used if other remediation options (e.g. on-site treatment, off site treatment) are not reasonably practicable.

In the event of discovery of unexpected contaminated land the Contractor shall inform the Employer's Representative.

9.5 Ecology (Works Contract)

The Contractor shall protect and enhance the existing biodiversity. This shall include, but not be limited to;

a) Contribution to Network Rail Sustainability Policy goals and targets.

b) Minimising the need to disturb species and habitats, for example through reducing loss of vegetation and planning to avoid seasonal constraints.

c) Undertaking appropriate surveys for protected species/habitats and invasive/injurious weeds. If protected/invasive species and habitats are identified, implement appropriate protection/mitigation measures including application for any licenses.

d) Agree with the Employer's Representative what actions shall be taken to enhance the ecology/habitat where practicable, for example, through planting schemes that include appropriate Local Biodiversity Action Plan priority habitats and species

The Contractor shall liaise with the local Community Relations representative with regard to the extent of any vegetation clearance.

In the event of an unexpected discovery of protected species/habitat on site, the Contractor shall inform the Employer's Representative immediately and protect the species until agreement is reached with the Employer's Representative and the Regulator on the methods for continuing the works.

9.6 Energy (Works Contract)

The Contractor shall minimise energy consumption and $CO_{2(e)}$ emissions during the works. This shall include, but not be limited to:

a) Compliance and contribution to Network Rails Sustainability Policy goal and carbon reduction target.

b) Continuation of any actions to reduce energy consumption and $CO_{2(e)}$ emissions initiated in the design phase.

c) Continue any assessment of energy consumption and $CO_{2(e)}$ emissions initiated at the design phase.

d) The use of energy efficient plant where appropriate.

e) Maintenance of plant for energy efficiency.

9.7 Herbicide and Pesticide Application (Plant Protection Products) (Works Contract)

The Contractor shall comply with the Management of Lineside Vegetation Standard (NR/L2/TRK/5201).

Contractors using plant protection products, including herbicides, shall have received adequate training. This applies to:

a) Users, operators and technicians (including Contractors);

b) Managers;

c) Employer's:

d) Self-employed people; and

e) People who give instruction to others on how to use pesticides/herbicides.

Records shall be kept of this training.

The storage and transport of herbicides, and COSHH record keeping, shall be maintained in line with Pesticides: Code of Practice for using Plant Protection Products (2006, Defra) and Pesticides: Code of Practice for Using Plant Protection Products in Scotland (2007 Scottish Executive and Health and Safety Commission).

Before any product approved for use in or near water is used, the Contractor shall consult with the Environment Agency/ Scottish Environment Protection Agency and water abstractors shall be notified. The Environment Agency form (WQM1) shall be used to facilitate this requirement. Natural England/Scottish Natural Heritage may also need to be contacted if the pesticide/herbicide is used in or near a watercourse or statutory protected site.

All spraying applications shall be recorded and kept on file and copies submitted to the Employer's Representative. A process shall be put in place to enable these records to be made available to the regulatory authorities on an annual and ad hoc basis.

Any occurrences of accidental spraying or spillage in or near water/ protected sites shall be reported as an environment incident.

9.8 Landscape (Works Contract)

The Contractor shall manage adverse visual impact and enhance the existing landscape where practicable. This shall include, but not be limited to;

a) Protect the existing landscape through, for example, retaining original landscape features and safeguarding trees, soil and water conditions

b) Minimise the impact on the landscape including locating visually prominent infrastructure sensitively and away from residential properties where reasonably practicable.

c) Agree with the Employer's Representative what actions shall be taken to enhance or introduce new public amenity and landscape features.

The Contractor shall liaise with the local Community Relations representative with regard to the extent of vegetation clearance.

9.9 Lighting (Works Contract)

The Contractor shall use Best Practicable Means to reduce light intrusion. This shall include, but not be limited to:

a) Avoiding the use of lighting or use the appropriate lux levels to minimise disturbance.

b) Using directional lighting to avoid intrusion.

c) Avoiding disturbance of protected species e.g. bats

d) Use alternative energy sources, for example batteries or mains power, rather than generators.

9.10 Materials (Works Contract)

The Contractor shall minimise the use of non-sustainable resources. This may include, but not be limited to;

a) Minimising the use of primary materials such as aggregates.

b) Reducing resource use and waste during construction, for example through appropriate prefabrication methods.

c) Appropriate material storage to reduce wastage.

d) Identify potential for reuse of products or materials within the project and via NDS

The Contractor shall minimise the use of materials that:

d) Are a risk to the Network Rails Sustainability Policy goals and sustainable materials target.

e) Contain substances known to contribute to stratospheric ozone depletion or with the potential to contribute to global warming.

f) Have a hazardous nature, using less hazardous materials where viable alternatives exist.

Network Rail is a member of the WWF Global Forest Trade Network (GFTN) and are committed to reducing the risk of illegal timber entering our supply chain and improving the amount of sustainable timber used in our works. The contractor shall

use credibly certified (as defined by WWF-GFTN) sources of timber for permanent and temporary use and maintain records of chain of custody certificates unless otherwise agreed with the Employer's Representative. A record shall be kept of this decision.

9.11 Noise and vibration (Works Contract)

The Contractor shall implement Best Practicable Means to eliminate, reduce and manage noise and vibration. This shall include, but not be limited to;

a) Minimise noise and vibration during construction, including through;

- locating plant and equipment away from sensitive receptors
- maintaining plant to reduce noise emissions
- using silenced equipment where practicable

b) Reducing the impact on receptor sites from noise and vibration where elimination of the impacts is not reasonably practicable, including

- Working hours shall be agreed on a site by site basis and included in the work package plans process/method statements. Working hours shall be discussed with the relevant local authority.
- Use of localised screening
- Agree an appropriate noise and vibration monitoring programme with the Employer's Representative and, where appropriate, the relevant local authority.

Section 61 Consents:

a) The Contractor shall seek Local Authority consent under Section 61 of the Control of Pollution Act for work unless the Contractor can demonstrate, with agreement from the Employer's Representative, that construction noise risk can be managed otherwise. This decision shall be recorded.

b) That Contractor shall provide copies of Section 61 consents to the Employer's Representative and local Community Representative within 7 days of receipt.

9.12 Public Highways (Works Contract)

The Contractor shall undertaken appropriate planning and consultation with the highways authority for works affecting public highways.

The Contractor shall minimise the impacts of construction traffic on the public, highways and access routes, including, but not limited to;

a) Undertaking measures to prevent the spread of mud on roads.

b) Vehicles shall not be left running while not in use.

c) Planning delivery routes and times.

9.13 Waste (Works Contract)

The Contractor shall comply with waste management legislation including producing a Site Waste Management Plan in compliance with the Site Waste Management Plan Regulations 2008.

The Contractor shall comply with Network Rail Waste Management Standard NR/L2/ENV/004, Network Rail Track Maintenance, Renewal or Alteration – Used Ballast Handling Standard (NR/L3/ENV/044) and associated business unit waste standards and processes.

Network Rail is committed to the WRAP Halving Waste to Landfill Commitment. Contractors are required to actively seek ways of reducing the volume of waste produced and the volume sent to landfill.

The Contractor shall document the volume of waste likely to be produced by waste type and assess how much of each waste type is likely to be reused, recycled, recovered or disposed of.

The Contractor shall prioritise actions to reduce waste production and disposal to landfill and forecast the resulting improvements. This information shall be updated and reported throughout the project in timescales agreed with the Employer's Representative. Actions shall include, but not be limited to;

a) Delivering any project-level targets.

b) Appropriate ordering, storage and use of materials to minimise production of waste.

c) Continuation of any actions to reduce waste production and disposal initiated in the design phase.

d) Follow the waste management hierarchy of reduce/reuse/recycling/recovery/disposal; disposal to landfill shall be the last option.

e) Assessment of the end-of-life options of materials used to minimise the need for later disposal.

The Contractor shall obtain the Waste Carrier's registration and contact details prior to their use. The Contractor shall obtain the waste management licence or exemption number of waste management/disposal site(s) prior to their use.

9.14 Water (Works Contract)

The Contractor shall protect the water environment. This shall include, but not be limited to;

a) Assessing the risk to sensitive water receptors during the risk assessment and implement all appropriate pollution prevention measures.

b) Obtaining and complying with the appropriate abstraction, discharge and other water environment consents.

c) Identifying any drains, springs or waterways that may be disturbed by the work and agree appropriate mitigation measures with the Employer's Representative. Should any drain or spring appear or be uncovered, adequate measures shall be provided to convey the water to a suitable outlet.

d) The Contractor shall agree an appropriate water quality monitoring programme with the Employer's Representative.

The Contractor shall use the appropriate volume and source of water. This shall include, but not be limited to;

a) Continuation of any actions to reduce water consumption initiated in the design phase.

b) Use the appropriate quality of water for use including harvested water, grey water recycling, abstraction, tanker delivery and mains supply.

c) Use of water efficient plant where appropriate.

The Contractor shall not make temporary or permanent connections to any mains, drains, pipes, watercourses or their utility services without notifying the Employer's Representative.

10 Specified Environmental Impact Areas - Service Contracts

10.1 General Environnent Management (Service Contract)

The Supplier shall review the benefits (financially and environmentally) of environment risk reduction/opportunities and agree proposed options for inclusion in the works.

10.2 Air quality (Service Contract)

The Supplier shall implement Best Practicable Means to eliminate, reduce or mitigate emissions to air including plant and vehicle emissions, dust, smoke, particulates, fumes and smells. This shall include, bit not be limited to;

a) Minimising emissions to air.
b) Reduce the impact on receptor sites from emissions to air where elimination of the impacts is not reasonably practicable.

The Supplier shall agree an appropriate air quality monitoring programme with the Employer's Representative.

10.3 Archaeology and Cultural Heritage (Service Contract)

The Supplier shall protect the existing archaeology and cultural heritage. This shall include, but not be limited to;

a) Identification of sites of potential archaeological or cultural heritage interest, including consent requirements.

b) Minimise the disturbance of sites of archaeology or cultural heritage interest.

c) Protect sites of archaeology or cultural heritage interest from damage.

In the event of an unexpected discovery of archaeological remains on site, the Supplier shall inform the Employer's Representative immediately and protect the remains until agreement is reached with the Employer's Representative and appropriate Statutory Bodies on the methods for continuance of the works.

10.4 Contaminated Land (Service Contract)

The Supplier shall

a) Identify potential areas of contaminated land

b) Minimise disturbance of contaminated land and avoid the introduction of pollution pathways.

c) Remove/remediate where necessary. Landfill shall only be used if other remediation options (e.g. on-site treatment, off site treatment) are not reasonably practicable.

In the event of discovery of unexpected contaminated land the Supplier shall inform the Employer's Representative.

10.5 Ecology (Service Contract)

The Supplier shall protect and enhance the existing biodiversity. This shall include, but not be limited to;

a) Contribution to Network Rail Sustainability Policy goals and targets

b) Minimising the need to disturb species and habitat, for example through reducing loss of vegetation and planning to avoid seasonal constraints.

c) Undertake appropriate surveys for protected species and habitats and invasive/injurious weeds. If protected/invasive species and habitats are identified, implement appropriate protection/mitigation measures including application for any licenses.

d) Agree with the Employer's Representative what actions shall be taken to enhance the ecology/habitat where practicable for example, through planting schemes that include appropriate Local Biodiversity Action Plan priority habitats and species

The Supplier shall liaise with the local Community Relations representative with regard to the extent of any vegetation clearance.

In the event of an unexpected discovery of protected species on site, the Supplier shall inform the Employer's Representative immediately and protect the species until agreement is reached with the Employer's Representative and the Regulator on the methods for continuing the works.

10.6 Energy (Service Contract)

The Supplier shall minimise energy consumption and $CO_{2(e)}$ emissions during the works. This shall include, but not be limited to:

a) Compliance and contribution to Network Rails Sustainability Policy goal and carbon reduction target.

b) The use of energy efficient plant/equipment where appropriate.

c) Maintenance of plant for energy efficiency.

10.7 Herbicide and Pesticide Application (Plant Protection Products) (Service Contract)

The Supplier shall comply with the Management of Lineside Vegetation Standard (NR/L2/TRK/5201).

Suppliers using plant protection products professionally, including herbicides, shall have received adequate training. This applies to:

a) Users, operators and technicians (including Contractors);

b) Managers;

c) Employer's:

d) Self-employed people; and

e) People who give instruction to others on how to use pesticides.

Records shall be kept of this training.

The storage and transport of herbicides, and COSHH record keeping, shall be maintained in line with Pesticides: Code of Practice for using Plant Protection Products (2006, Defra) and Pesticides: Code of Practice for Using Plant Protection Products in Scotland (2007 Scottish Executive and Health and Safety Commission).

Before any product approved for use in or near water is used, the Contractor shall consult with the Environment Agency/ Scottish Environment Protection Agency and water abstractors shall be notified. The Environment Agency form (WQM1) shall be used to facilitate this requirement. Natural England/Scottish Natural Heritage may also need to be contacted if the pesticide/herbicide is used in or near a watercourse or statutory protected site.

All spraying applications shall be recorded and kept on file and copies submitted to the Employer's Representative. A process shall be put in place to enable these records to be made available to the regulatory authorities on an annual and ad hoc basis.

Any occurrences of accidental spraying or spillage in or near water/ protected sites shall be reported as an environment incident.

10.8 Landscape (Service Contract)

The Supplier shall manage adverse visual impact and enhance the existing landscape where practicable. This shall include, but not be limited to;

a. Minimising impact on the landscape including locating visually prominent infrastructure sensitively and away from residential properties where reasonably practicable.

b. Protecting the existing landscape through, for example, retaining original landscape features and safeguarding trees, soil and water conditions

The Supplier shall liaise with the local Community Relations representative with regard to the extent of vegetation clearance.

10.9 Lighting (Service Contract)

The Supplier shall use Best Practicable Means to reduce light intrusion. This shall include, but not be limited to:

a) Avoiding the use of lighting or using appropriate lux levels to minimise disturbance

b) Using directional lighting to avoid intrusion

c) Avoiding disturbance of protected species e.g. bats

d) Use alternative energy sources for example batteries or mains power rather than generators

10.10 Materials (Service Contract)

The Supplier shall minimise the use of non-sustainable resources. This may include, but not be limited to;

a) Minimise the use of primary materials such as aggregates

b) Identify the potential for reuse of products or materials within the project and via NDS

c) Appropriate material storage to reduce wastage

The Supplier shall minimise the use of materials that:

a) Are a risk to the Network Rails Sustainability Policy goals and sustainable materials target in the risk assessment

b) Contain substances known to contribute to stratospheric ozone depletion or with the potential to contribute to global warming

c) Have a hazardous nature. The supplier shall use less hazardous materials where viable alternatives exist

Network Rail is a member of the WWF Global Forest Trade Network (GFTN) and are committed to reducing the risk of illegal timber entering our supply chain and improving the amount of sustainable timber used in our works. The supplier shall use credibly certified (as defined by WWF-GFTN) sources of timber for permanent and temporary use and maintain records of the chain of custody, unless otherwise agreed with the Employer's Representative. A record shall be kept of this decision.

10.11 Noise and vibration (Service Contract)

The Supplier shall implement Best Practicable Means to eliminate, reduce and manage noise and vibration. This shall include, but not be limited to;

a) Minimising disturbance from noise and vibration including;

- Maintaining plant to reduce noise emissions
- Locating plant and equipment away from sensitive receptors
- Using silenced equipment where practicable

b) Reducing the impact on receptor sites from noise and vibration where elimination of the impacts is not reasonably practicable, including

- Working hours shall be agreed on a site by site basis and included in the work package plans process/method statements. Working hours shall be discussed with the relevant local authority.
- Use of localised screening

The Contractor shall agree an appropriate noise and vibration monitoring programme with the Employer's Representative and, where appropriate, the relevant local authority.

10.12 Public Highways (Service Contract)

The Supplier shall undertaken appropriate planning and consultation with the highways authority on works affecting highways.

The Supplier shall minimise the impacts of traffic on the public, highways and access routes, including, but not limited to;

a) Undertaking measures to prevent the spread of mud on roads.

b) Vehicles shall not be left running while not in use.

c) Planning delivery routes and times.

10.13 Waste (Service Contract)

The Supplier shall comply with waste management legislation and Network Rail Waste Management Standard NR/L2/ENV/004, Network Rail Track Maintenance, Renewal or Alteration – Used Ballast Handling Standard (NR/L3/ENV/044) and associated business unit waste standards and processes.

The Supplier shall document the volume of waste likely to be produced by waste type and assess how much of each waste type is likely to be reused, recycled, recovered or disposed of. The Supplier shall prioritise actions to reduce waste production and disposal to landfill and forecast the resulting improvements. This information shall be updated and reported throughout the project in timescales agreed with the Employer's Representative. Actions shall include, but not be limited to;

a) Appropriate ordering, storage and use of materials to minimise production of waste.

b) Follow the waste management hierarchy of reuse/recycling/recovery/disposal; disposal to landfill shall be the last option.

c) Assessment of the end-of-life options of the materials used to minimise the need for later disposal.

The Supplier shall obtain the Waste Carrier's Registration and Contact Details prior to their use. The Contractor shall obtain the waste management licence or exemption number of waste management/disposal site(s) prior to their use.

10.14 Water (Service Contract)

The Supplier shall protect the water environment. This shall include, but not be limited to;

a) Implementing all appropriate pollution prevention measures.

b) Obtaining and complying with the appropriate abstraction, discharge and other water environment consents.

c) Identifying any drains, springs or waterways that may be disturbed by the work and agree appropriate mitigation measures with the Employer's

Representative. Should any drain or spring appear or be uncovered, adequate measures shall be provided to convey the water to a suitable outlet.

d) The Supplier shall agree an appropriate water quality monitoring programme with the Employer's Representative.

The Contractor shall use the appropriate volume and source of water. This shall include, but not be limited to;

a) Use the appropriate quality of water for use including harvested water, grey water recycling, abstraction, tanker delivery and mains supply.

b) Use of water efficient plant where appropriate.

The Supplier shall not make temporary or permanent connections to any mains, drains, pipes, watercourses or their utility services without notifying the Employer's Representative.

11 Incident Response Plan (Works and Service Contracts)

11.1 Incident Response Plan (IRP)

All Supplier's/Contractor's carrying out Service or Works shall produce an Incident Response Plan.

The IRP shall relate to the risks identified in the Environment Risk Assessment and comply with and reference relevant Network Rail Incident Standards.

The IRP shall include:

a) Operational control procedures to reduce the risk of potential environmental incidents identified in the Environmental Risk Assessment.

b) Procedures to be followed in the event of an incident including control and mitigation measures, reporting lines, investigation and closeout.

c) The responsibilities in the event of an incident.

d) The contact persons in the event of an incident including:

   I. The Supplier's/Contractor's nominated responsible person.

   II. Network Rail Asset Management Control Centre (AMCC)/Route Control Centre

   III. Regulatory bodies including the Environment Agency and/or Scottish Environment Protection Agency, Natural England, Scottish Natural Heritage and/or Countryside Council for Wales and Local Authority.

   IV. Employer's Representative.

The IRP shall provide for a rapid response to any incident arising from the works in accordance with relevant legislation.

The IRP should be briefed, communicated, readily available to site personnel and available to relevant bodies and organisations upon request. Control measures shall be communicated to all relevant personnel including through inductions, the work package plan process/method statements, Task Briefing Sheets, Toolbox Talks etc.

11.2 Reporting

11.2.1 External Reporting

Where there is a risk to the environment the incident shall be reported to the Environment Agency (EA) or Scottish Environment Protection Agency (SEPA). Appendix B provides guidelines as to when incidents shall be reported. Any reference numbers provided shall be recorded and notified to the Employer's Representative.

11.2.2 Internal Reporting

The Supplier/Contractor shall report all environment incidents to Network Rail in line with Network Rail incident standards including NR/L2/INV/002. The Contractor shall report all environment incidents for which their sub-contractors are responsible.

All Investment Project and NDS environment incidents shall be reported to Asset Management Group Control. All other environment incidents shall be reported to the Route Control Centre.

The Employer's Representative shall be notified at the time of occurrence and in writing within 12 hours of any significant environmental incidents.

The Employer's Representative shall be notified at the time of occurrence and in writing within 48 hours of occurrence of all other environment incidents.

For each incident the Designer/Supplier/Contractor shall record and report the:

i. contact details for persons involved,
ii. name of Employer's Representative,
iii. description of the incident,
iv. location of incident,
v. time of incident,
vi. material involved,
vii. quantity involved in event of spill/leak,
viii. source of incident,
ix. sensitive receptors affected,
x. control measures implemented,
xi. cause of the incident,
xii. timescales for follow up reporting and incident close out.
xiii. Incident classification

11.3 Incident Investigation

The Supplier/Contractor shall investigate environment incidents to identify root causes and prevent recurrence in line with Network Rail incident standards including NR/L2/INV/002.

The Supplier/Contractor shall co-operate fully with any Network Rail or third party investigation process and assist in the investigation, giving full access to all materials and information.

Appendix A: Example Risk Assessment

Activity	Issue	Requirement	Description	Affected parties	Likelihood*	Impact*	Score*	Existing Mitigation**	Future actions**	Owner
Bridge demolition	Noise	CR-E Legal	Statutory Nuisance Works stopped, increased cost and programme delays	Contractor Network Rail Local Community Local Authority	2	8	10	Contractor Noise and Vibration Procedure including site review to confirm sensitive receptors Training provided to site staff	Apply for S61 consent	Contractor
New Depot Design	Production of Waste	Network Rail Sustainability Policy WRAP Halving Waste to Landfill Commitment CR-E Site Waste Management Plan requirements	Potential to create large volume of construction waste.	Network Rail	6	6	12	none	Use WRAP Designing out Waste tool to identify opportunities to reduce waste production	Contractor

*risk significance scoring to be agreed with Employer's Representative.

** Evidence of existing mitigation measures and future actions may be requested by the Employer's Representative

Appendix B Template Environment Management Plan

Inset company logo here	***Design/Physical Works/Service*** ***(amend as appropriate)*** **Environmental Management Plan**
Prepared by: …… Role: Date: Internally Approved By: …….. Role: Date:	***Insert project name here*** Version:

Version History

Version	Date	Summary of Change	Led by
1.0		First version	

Template Contents

1.0 General Environment Requirements *(All Contracts)*

2.0 Specified Environmental Impact Areas - Design Contracts

3.0 Specific Environmental Impact Areas – Works Contracts

4.0 Specified Environmental Impact Areas - Service Contracts

5.0 Incident Response Plan (Physical Works and Service Contracts)

Risk and Opportunity Register

1.0 General Environment Requirements (All Contracts)

All contracts are to populate the detail under these headings as per the requirements of NR/L2/ENV/015.

1.1 Risk and Opportunities

Refer to the findings of the risk and opportunities register (as required by NR/L2/ENV/015) and include the risk assessment in Appendix A (example template provided in appendix A).

1.2 Requirements and Consents

1.3 Objectives and Targets

1.4 Roles and Responsibilities

1.5 Competence, Training and Awareness

1.6 Internal Communication

1.7 External Communication and Managing Lineside Neighbours

1.7.1 Communication with Network Rail

1.7.2 Statutory Authorities and Non Governmental Organisations

1.7.3 Other Stakeholders

1.7.4 Site work

1.8 Records and Documents

For Sections 2, 3 and 4, delete the entire section of any 'contract type' (design, physical works or service) which do not form part of your contract.

2.0 Specified Environmental Impact Areas - Design Contracts

Design contractors are to populate the detail under these headings as per the requirements of NR/L2/ENV/015. If a heading is deemed 'not applicable', please state why not.

2.1 Air Quality (Design)

2.2 Archaeology and Cultural Heritage (Design)

2.3 Contaminated Land (Design)

2.4 Ecology (Design)

2.5 Energy (Design)

2.6 Landscape (Design)

2.7 Lighting (Design)

2.8 Materials (Design)

2.9 Noise and Vibration (Design)

2.10 Waste (Design)

2.11Water (Design)

3.0 Specific Environmental Impact Areas – Works Contracts

Physical Works contractors are to populate the detail under these headings as per the requirements of NR/L2/ENV/015. For design and build contracts section 2 (design) & 3 are to be populated accordingly. If a heading is deemed 'not applicable', please state why not.

3.1 Air Quality (Works)

3.2 Archaeology and Cultural Heritage (Works)

3.3 Contaminated Land (Works)

3.4 Ecology (Works)

3.5 Energy (Works)

3.6 Landscape (Works)

3.7 Lighting (Works)

3.8 Materials (Works)

3.9 Noise and Vibration (Works)

3.10 Waste (Works)

3.11 Water (Works)

4.0 Specified Environmental Impact Areas - Service Contracts

Service contracts are to populate the detail under these headings as per the requirements of NR/L2/ENV/015. If a heading is deemed 'not applicable', please state why not.

4.1 Air quality (Service Contract)

4.3 Contaminated Land (Service Contract)

4.4 Ecology (Service Contract)

4.2 Archaeology and Cultural Heritage (Service Contract)

4.5 Energy (Service Contract)

4.6 Herbicide and Pesticide Application (Plant Protection Products) (Service Contract)

4.7 Landscape (Service Contract)

4.8 Lighting (Service Contract)

4.9 Materials (Service Contract)

4.10 Noise and vibration (Service Contract)

4.11 Public Highways (Service Contract)

4.13 Waste (Service Contract)

4.14 Water (Service Contract)

5.0 Incident Response Plan (Works and Service Contracts)

Specify how the project Incident Response Plan is to be briefed, communicated, displayed, made readily available to site personnel and available upon request by relevant bodies and organisations, including Network Rail.

Ref:	**NR/L2/ENV/015**
Issue:	6
Date:	03/09/2011
Compliance date:	03/12/2011

Template EMP Risk and Opportunity Register

Activity	Issue	Requirement	Description	Affected parties	Likelihood*	Impact*	Score*	Existing Mitigation**	Future actions**	Owner

Appendix C.

Guidelines on reported incidents to the Environment Agency and SEPA (Extract of Memorandum of Understanding with the Environment Agency)

The following list is included as an example of the criteria and is not meant to be exhaustive. It may also be influenced by factors such as the Environmental Sensitivity of the site. Discussions should therefore take place at a local level to agree when the Environment Agency or Scottish Environment Protection Agency should be informed of environmental incidents.

- Spillages of HAZCHEM listed chemicals (unless otherwise stated. See Note 1)
- Spillages of Low Hazard products with polluting potential (See Note 2)
- Petrol spillages greater than 100 litres
- Hydrocarbon spillages greater than 20 litres (Inc. hydraulic oils and cutting oils)
- Any spillages in or near watercourses
- Incidents at Environment Agency/ Scottish Environment Protection Agency - regulated Network Rail sites in accordance with Permit Conditions
- Incidents involving hazardous fly tipped waste
- Loss of cable or transformer oil in accordance with the incident notification thresholds contained in Annex 2
- Incidents involving flooding from main river watercourses or where actions or incidents have occurred that could increase the risk of future flooding (See Note 3)
- Significant releases of silt/sands/cement slurry (Note 4)

There might be incidents that do not fall into any of these categories; if any doubt exists, the Environment Agency should always be contacted.

Note 1: Incidents involving UN classified Dangerous Goods should be notified to the Environment Agency or Scottish Environment Protection Agency unless the incident involves only small quantities of mineral oils (under 20 litres). Incidents involving most gases are unlikely to be of interest to the Environment Agency or Scottish Environment Protection Agency unless large quantities of water or foam are used. Ammonia and Chlorine are notable exceptions.

Note 2: Substances such as milk and beer are highly polluting if discharged into the aquatic environment. Many other seemingly low hazard substances can also pose a risk. A list of 'Low Hazard Products with Polluting Potential' is included in Table 1

Note 3: Examples could include blockage to a main river or damage to a flood defence or control structure and any works in the floodplain that may have an impact on the effectiveness of the floodplain

Note 4. Discharges of silty/sandy water can be highly polluting and should be avoided, as should discharges of water contaminated with cement. Typical sources of such pollution can include dewatering operations, dredging, and surface run-off during construction activities.

Low hazard products with polluting potential

Substance	**Threshold**	**Example**
Detergents	25 litres	washing powder, washing up liquid, shampoos, soaps and car cleaning products
Disinfectants	25 litres	household bleach, Dettol
Food Stuffs	250 litres	most have the potential to cause problems, but of particular concern are sauces, sugars, salt, syrups, milk, cream, yoghurt and vinegar
Beverages	250 litres	soft drinks, beers, lagers, wines and spirits
Fertilisers	25 Kg	All
Paint and Dye	25 Kg	All
Other Organic liquids/Slurries	Varies	blood, offal, farmyard slurries, fire fighting foams, sewage sludge, antifreeze, cutting, lube and cooking oils, glycerine, alcohols, latex, water soluble polymers

The effects of these products vary widely; some, such as detergents, are toxic to aquatic life. Silt and sand can smother and choke aquatic life whilst others, such as foodstuffs, beverages and blood, can deoxygenate the water. Fertilisers and detergent are both toxic and lead to deoxygenation. Every effort should be made to contain these products.

The threshold quantities above are a guide. If there is a spillage of any of the substances, the Environment Agency or Scottish Environment Protection Agency should be contacted if more information is required about the possible effects.

Other, seemingly harmless, products such as tyres, rubbish and straw can also cause problems if involved in fires, as fire-fighting run-off from incidents involving them can be highly polluting.

Standards Briefing Note

Ref: NR/L2/ENV/015	**Issue:** 6
Title: Contract Requirements Environment	
Publication Date: 03/09/2011	**Compliance Date:** 03/12/2011
Standard Owner: Head Of Environment Policy	
Non-Compliance rep (NRNC): Environment Standards Specialist	
Further information contact: Kate Barton	**Tel:** 07801 334341

Purpose: Designers, Suppliers and Contractors need to meet this Standard in order to demonstrate compliance with Network Rail's Sustainability Policy and to assist Network Rail in meeting its environmental commitments, including our support of the Waste Resource Action Programme (WRAP) Halving Waste to Landfill Construction Commitment.

Scope: This standard is mandatory for all Network Rail Design, Services or Works Contracts/Suppliers.

What's New/ What's Changed and Why: CR-E is now based on a risk assessment approach, this means appropriate environmental management is implemented for all contracts. Key changes include:

1. All design, physical works and service works contracts are required to undertake an environmental risk assessment
2. The CR-E details generic environmental management processes that must be complied with and specific environmental requirements for design, physical and service contracts.
3. All contractors operating under the GRIP process are required to develop an Environment Management Plan (EMP).
4. All contracts are required to comply with the generic environmental management requirements. GRIP projects should detail how these requirements are met in the project EMP. Non-GRIP contracts may be asked for evidence of compliance as appropriate thorughout the contract.
5. All contracts must have in place controls for the risks identified in the environmental risk assessment and the specific environment requirements for design, physical works and service contracts where appropriate. GRIP projects should detail these controls in the EMP. Non-GRIP contracts will be asked for evidence of compliance as appropriate throughout the contract.
6. All physical works and service contracts must have in place an Incident Response Plan.
7. A template for the EMP is provided for consistency.
8. The Employers Representative (this could be project manager, programme manager, asset manager, environment manager etc) is responsible for checking the contractor is compliant with this standard and accepting the deliverables.

Affected documents:

Reference	*Impact*
NR/SP/ENV/015 ISSUE 5	Superseded
CONTRACT REQUIREMENTS HSQE	Update Reference

Briefing requirements: *Where Technical briefing (T) is required, the specific Post title is indicated. These posts have specific responsibilities within this standard and receive briefing as part of the Implementation Programme. For Awareness briefing (A) the Post title is not mandatory.*

Please see http://ccms2.hiav.networkrail.co.uk/webtop/drl/objectId/09013b5b804504da for guidance.

Briefing (A-Awareness/ T-Technical)	Post	Team	Function
T	Environment Specialist	HSEA	NDS
T	Business Managers	Materials Enhancements Operations	NDS
T	Contract and Procurement Manager	Contracts and Procurement	NDS
T	Project Manager	Enhancements	NDS
T	Project Development Manager	Enhancements	NDS
T	HSEA Specialist	HSEA	NDS
T	Environment Manager	HSEA	NDS
A		Strategic Sourcing	Contracts and Procurement
A		External Communications	Government and Corporate Affairs
T	Construction and Maintenance Manager	Commercial Estate	Property
T	Project Manager	Commercial Estate	Property
T	Scheme Project Manager	Commercial Estate	Property
T	National Business Manager	Commercial Estate	Property
T	Estate Manager	Commercial Estate	Property

T	Development Manager	Regional Development	Property
T	Environment Manager	Investment Programme Management	Investment Projects
T	Environment Specialist	Investment Programme Management	Investment Projects
T	Environment Manager	Thameslink	Investment Projects
T	Environment Specialists	Thameslink	Investment Projects
T	Environment Manager	Crossrail	Investment Projects
T	Environment Specialists	Crossrail	Investment Projects
T	Head of Planning and Consents	Crossrail	Investment Projects
A	Head of HSEA	Crossrail	Investment Projects
T	Environment Manager	Enhancements	Investment Projects
T	Environment Specialists	Enhancements	Investment Projects
T	Environment Manager	FTN/GSM-R	Investment Projects
T	Environment Specialists	FTN/GSM-R	Investment Projects
T	Environment Manager	Buildings and Civil	Investment Projects
T	Environment Manager	S&E	Investment Projects
T	Environment Manager	HQ Safety and Compliance	Infrastructure Maintenance
T	Environment Specialist	HQ Safety and Compliance	Infrastructure Maintenance
T	Programme Managers (Works Delivery)	Delivery Unit	Infrastructure Maintenance
T	Project Managers (Works Delivery)	Delivery Unit	Infrastructure Maintenance
T	Senior/Programme Manager	Signalling and Electrification	Investment Projects
T	Senior/Project Manager	Signalling and Electrification	Investment Projects
T	Head of HSEA	Signalling and Electrification	Investment Projects
T	Senior/Programme Manager	FTN-GSM-R	Investment Projects
T	Senior/project Manager	FTN-GSM-R	Investment Projects
T	Senior/project Manager	Enhancements	Investment Projects
T	Senior/project Manager	Thameslink	Investment Projects
T	Construction Manager	Thameslink	Investment Projects
A	Workforce Safety Advisors	Delivery Unit	Infrastructure Maintenance

**NOTE: Contractors are responsible for arranging and undertaking their own Technical and Awareness Briefings in accordance with their own processes and procedure*