CONSTANT ENERGY LIMITED

TIRAWLEY WIND FARM

CO. MAYO

CONSTRUCTION ENVIRONMENTAL MANAGEMENT PLAN (CEMP)

MANAGEMENT PLAN 1

EMERGENCY RESPONSE PLAN

April 2026

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DOCUMENT APPROVAL

PROJECT	Tirawley Wind Farm	
CLIENT / JOB NO	Constant Energy Limited	6289
DOCUMENT TITLE	Construction Environmental Management Plan (CEMP) Management Plan 1 Emergency Response Plan	

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1. INTRODUCTION

1.1 Why have an Emergency Response Plan?

Many construction and industrial sites intrinsically have the potential to cause significant environmental harm which could threaten water supplies, public health and wildlife in the event of an environmental incident. The aim of this plan is to see that in the event of an emergency; quick action will limit any impacts on humans and the local environment.

This response plan forms part of the conditions of work for staff, and for every contractor or sub-contractor at the site.

1.2 Outline of this Environmental (Incident & Emergency) Response Plan

The information contained in this plan forms the Emergency Response Plan (ERP), part of the outline Construction Environmental Management Plan (CEMP) for Tirawley Wind Farm.

It contains details of:

- Who should be contacted in an emergency?
- Procedures to be followed in an emergency
- Staff responsibilities in an emergency

1.3 What is an Environmental Incident?

This plan should be instigated once there has been an emergency or environmental incident on site or elsewhere, linked to the construction of Tirawley Wind Farm. Such an incident is a discharge to air, land or water that could cause environmental damage. Causes of environmental incidents on this site include:

- Leaking plant or equipment
- Containment Failure
- Fire
- Land Slide
- Vandalism
- Overfilling of containment vessels
- Flooding on site
- Leaking Portaloo
- Discharge of raw or partially treated effluent

- Wind-blown waste, litter or dust
- Fuel drips or spills during refuelling
- Leak from fuel or chemical containers
- Contaminated water or sediment/silt entering a water course or drain
- Failure of pumps and pipelines
- Blade throw (results from wind turbine failure and may include the splintering of rotor blades and detachment of debris)

Any of these incidents could affect drainage systems, surface waters, aquatic ecosystems, groundwater and soil. These incidents could also affect air quality by producing toxic fumes and airborne pollutants which may damage human health, wild and domestic animals and ecosystems. The emergency procedures to be followed for each of the incidents listed above ae detailed in **Section 6.1**.

1.4 Reference Documents

Current legislation including the Safety, Health and Welfare at Work Act 2005 and the Safety Health and Welfare at Work (Construction) Regulations 2013, has been taken into account into the production of this Plan and will be accounted for in the further development of the Contractor's Construction Management Plan.

This plan has been developed alongside other Management Plans that form part of the Construction Environmental Management Plan (CEMP) including a:

- Water Quality Management Plan
- Surface Water Management Plan
- Peat and Spoil Management Plan
- Waste Management Plan
- Decommissioning Plan
- Traffic Management Plan

2. GENERAL REQUIREMENTS OF AN ERP

As mentioned, environmental incidents may include flooding, spillages (oil and chemicals), contaminated run-off, riverbed disturbance, damage to underground services, damage to habitats, poor waste disposal and storage.

This Emergency Response Plan:

- Identifies key staff and 24-hour contact details to be contacted in the event of an emergency (**Section 6.5**)
- Identifies key external bodies and emergency response numbers who should be contacted in the event of an emergency (**Section 6.4)**
- Details an Inventory of Chemical Products and Waste Inventory on Site (**Section 6.6**)*
- Details an Inventory of Pollution Prevention Equipment (**Section 6.7**)
- Provides details of staff trained in the use of spill kits and booms etc. (**Section 6.8**)
- Provides details of reporting requirements (**Sections 6.3 to 6.9**)
- Provides detailed procedures to be followed in the event of an emergency (**Sections 6.1 and 6.2**)
- Provides a Communication Plan for operatives outlining key actions in the event of an emergency (**Section 6.2**). This will be available to all operatives on site.

*****Because of the nature of wind farm construction operations and the nature of works on site, the potential pollutants will vary.*

3. BATTERY STORAGE FACILITY EMERGENCY RESPONSE PLAN

This Battery Safety Management Plan (BSMP) has been prepared as part of the overall Emergency Response Plan to define the safety strategy and requirements for the proposed Battery Energy Storage System (BESS) at Tirawley, Co. Mayo. The aim is to establish a safety performance baseline that ensures risks are reduced to a level that is As Low As Reasonably Practicable (ALARP).

- **Scope**: Covers the design, siting, operation, and future decommissioning of the containerised battery units and associated infrastructure.
- **Alignment**: This plan aligns with international best practices, including NFPA 855 (Standard for the Installation of Stationary Energy Storage Systems) and UL 9540A (Test Method for Evaluating Thermal Runaway Fire Propagation).

3.1 Core Safety Principles & Design Mitigation

The facility will incorporate a layered protection approach to prevent and manage potential fire or explosion incidents:

- **Technology Selection:** All battery units will utilise chemistries regarded as having a reduced propensity for thermal runaway, such as Lithium Iron Phosphate (LFP).

- **Separation and Siting:** Minimum spacing between battery units will be maintained in accordance with manufacturer instructions and prevailing fire safety guidance to prevent fire propagation.
- **Monitoring Systems:** A Battery Management System (BMS) will provide 24/7 continuous monitoring at the cell, module, and rack level.
- **Venting:** Enclosures will be fitted with deflagration venting to safely direct energy and gases externally in the unlikely event of internal pressure build-up.

3.2 Emergency Response Strategy

Safety management for the site is integrated with the Project Emergency Response Plan.

Access: The site layout provides suitable vehicular access for the Fire and Rescue Service (FRS), including sufficient road widths and turning areas to allow for unobstructed movement around the facility. Please refer to BESS Drawings 6289-PL-2000 to 6289-PL-2008.

- Firefighting Tactics: The primary strategy for a battery fire is a "controlled burn," where an affected unit is allowed to consume its fuel naturally while being monitored, rather than applying high volumes of water directly to the cells.
    - Perimeter cooling may be employed by the FRS to prevent fire spread to adjacent units or vegetation.

Water Supply: Provisions for firefighting water will be established in consultation with the local fire authority including on-site water storage tanks. Please refer to BESS Drawings 6289-PL-2000 to 6289-PL-2008.

3.3 Environmental Protection

In the event of an incident involving water application (perimeter cooling), the following measures will apply:

- **Containment:** On-site drainage infrastructure is designed to collect and hold potentially contaminated water run-off.
- **Disposal:** Any contaminated soil or fire-suppression materials will be removed from the site by a licensed waste contractor.

3.4 Management and Review

This BSMP is a living document relevant to the planning phase. It will be subject to a full review prior to construction to reflect:

- Final selection of BESS hardware and specific product technologies.
- Updates to Irish or international legislative requirements and guidance.
- Detailed consultation with the local Fire and Rescue Service and Building Control Office and Fire Warden.

Please refer to BESS Drawings 6289-PL-2000 to 6289-PL-2008.

4. INCIDENT & HAZARD REPORTING

A blank Environmental Incident Report Form for reporting environmental incidents or hazards for the site is attached in **Section 6.9**. A blank Site Environmental Audit Form is attached in **Section 6.10** to record audit results. The details recorded in these forms will be regularly reviewed and will form part of the response plan procedural review.

5. WASTE DISPOSAL AFTER ENVIRONMENTAL INCIDENCES

If spill kits etc. are used in the event of a pollution incident, operatives need to carefully dispose of used equipment by carefully placing them in a sealed bag or container. They should then be removed from site by a licensed waste contractor as per the **Waste Management Plan**. Contaminated soil also needs to be disposed of as hazardous waste by a permit holder. This is also further detailed in the **Waste Management Plan** of this CEMP.

6. SITE INDUCTION AND TOOLBOX TALKS

It is imperative that all contractors, sub-contractors and staff on site are fully familiar with this emergency response plan, and it will be detailed regularly in Toolbox Talks. During these talks, they will also receive regular reminders of the importance of the local environment and of the necessary environmental controls that are in place on site.

7. PROCEDURE AND COMMUNICATION PLAN IN EVENT OF AN INCIDENT

7.1 Procedures to be followed in the event of an incident:

The following procedures are intended as a guide in dealing with incidents. Health & Safety guidance should be followed at all times applying common sense and ensuring the health & safety of yourself and others:

7.1.1 Spillages/Leaks/Containment Failure

1. Identify the source of the spillage and cut off source, if possible, e.g. by closing valve, righting container etc.
2. Work on site will cease and all operatives will assist in placing spill mats on the affected area. Site Manager/ Main Contact must be notified.
3. Identify where spillage may go. If spillage is near a watercourse (drainage/ditch/ river) divert spillage away from the watercourse through the use of absorbent materials from the spill kit.
4. Notify all parties in the order listed in **Sections 6.4** and **6.5**. Notification should be made by one member of staff whilst remainder of staff present deal with the spill/incident.
5. Dig up all contaminated ground as soon as possible/immediately. All contaminated materials should be placed in sealed polythene bags/containers and disposed of appropriately by an appropriate licensed waste contractor.
6. Complete required record of incident and response into reporting system

7.1.2 Contamination of Watercourse

Suspended Solids

If watercourse is at risk of contamination from suspended solids from a slope failure the Site Manager/ Main Contact must be notified, and the following actions must be implemented:

a) Place straw bales wrapped in geotextile or sand/gravel bags with geotextile curtains **immediately** in the watercourse(s) at regular intervals downstream from the incident. These sand/straw bags and bales will be removed and replaced with stone filters once water quality is stabilised.

b) Stone check dams faced with a layer of geotextile will be constructed at critical points along the watercourse.

c) Small sumps will be formed intermittently between the check dams to reduce the amount of suspended solids contained in the water.

Oil Spill in Watercourse

If spill has reached the watercourse the Site Manager/ Main Contact must be notified and the following actions must be implemented:

a) Place flexible absorbent booms across watercourse, ahead of the contamination within a quiet stretch of water.
b) Place absorbent cushions in the water immediately upstream of these booms as well as downstream of the booms.
c) Remove and replace saturated absorbent material as required. Please ensure removed cushions are placed in sealed polythene bags/containers and disposed of by the principal waste contractor.

7.1.3 Land Slide

Where the onset or actual detachment of peat (e.g., cracking, surface rippling) occurs:

a) All activities in the area will cease and all available resources will be diverted to assist in the required mitigation procedures.
b) The Site Manager/ Main Contact must be notified
c) All relevant authorities will be notified if a peat slide event occurs on site and this Emergency Response Plan (ERP) followed.
d) Where peat slides do not represent a risk to a watercourse and have stopped moving, they will be stabilised using rock infill, if required. The failed area and surrounding area will then be assessed by the engineering staff and a stabilisation procedure implemented. The area will be monitored, as appropriate, until movements have stopped.
e) Where possible, check barrages (comprises the placement of rock fill across a watercourse which allows the passage of water but will prevent peat debris from passing through) will be constructed on land using rock fill to prevent a peat slide reaching any watercourse.
f) If peat reaches a watercourse a check barrage will need to be constructed across the watercourse preventing the peat from moving downstream. The check barrage will allow water to flow through it, but the peat will be trapped.
g) The size of the check barrage will depend on the scale of the peat slide to be contained and the geometry of the watercourse at the location of the barrage.
h) All measures to contain the peat slide must be approved by the Mayo County Council or Inland Fisheries Ireland (IFI).

7.1.4 Fire

In the unlikely event of a fire at a turbine or at the substation, all personnel on site will meet at a designated fire point and emergency services will be contacted.

7.1.5 Blade Throw

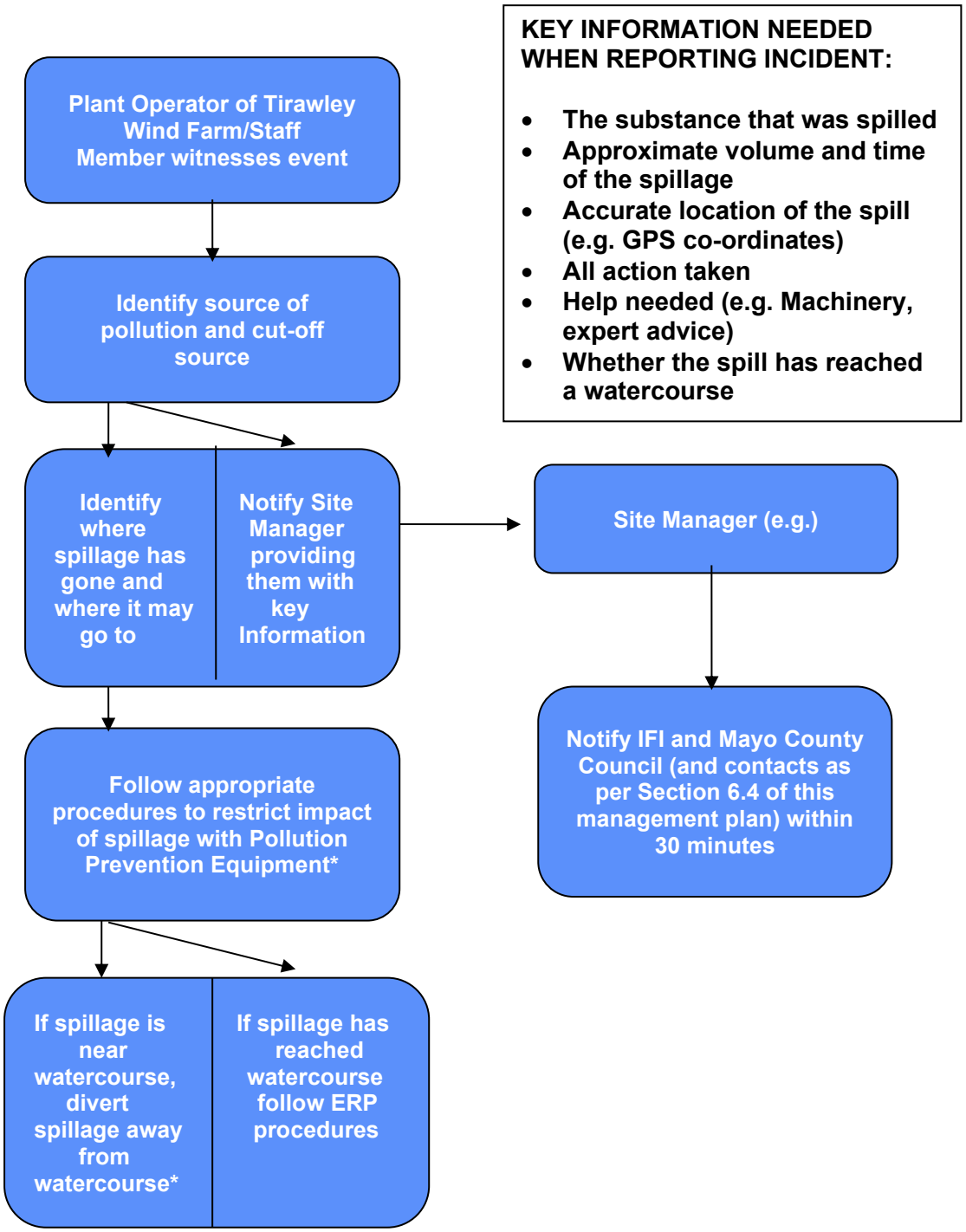
In the unlikely event of ice throw from blades, all activities in the area will cease and site personnel will stand clear of turbines where possible until they have been shut down completely.

7.1.6 Vandalism

In the event of a vandalism at the site, all personnel on site will be notified and An Garda Síochána will be contacted.

7.2 Communication Plan

A Communication Plan (to be followed in the event of an incident) will be provided by the Contactor, in liaison with relevant stakeholders and will be included in the updated ERP prior to commencement of site development works. An outline Communication Plan is proposed below:



7.3 Environmental Response Plan for Tirawley Wind Farm

INCIDENT RESPONSE PLAN FOR TIRAWLEY WIND FARM ***Based on template provided in GPP 21 – Pollution Prevention Guidelines.***	
Site Address: Tirawley Wind Farm, Co. Mayo **Official Company Address:** Constant Energy Limited 6th Floor Riverpoint, Lower Mallow Street, Co. Limerick, Ireland. **KEY HOLDERS FOR SITE – NAME & CONTACT NUMBERS:**	ITM: 515725 E, 834020 N **Map references:** OSI Discovery Sheet 23 - 24
Overview of the activities on site: **Include number of employees at different time of the day:** Daylight Hours: Dusk to Dawn: Weekend Dusk to Dawn: Bank Holidays:	
Date & Version of the plan:	**Name & position of person responsible for compiling/approving the plan:**
Review Date	**Date of next exercise:**
Objectives of the plan: To limit any potential harmful impact to the local environment through swift and appropriate actions in the event of an emergency.	
List of external organisations consulted in the preparation of this plan with contact details	
Distribution list of who has received this plan and which version. *Please note that it is recommended that you review and revise this plan regularly:*	

7.4 External Contacts

Contact	Office Hours	Out of Office
Emergency Services (Fire/Police/Ambulance)	999 or 112	999 or 112
Local Garda Station Killala Garda Station	096 32111	
Local Hospital. Ballina District Hospital	096 21166	
Environment, Climate Action & Agriculture Department	094 9064000	
EPA	053-916 0600	1850 365 121
Inland Fisheries Ireland	01 8842600	**1890 347 424 (24 hours a day)**
Roads Service (Blocked/Flooded Roads)	0300 2000 100	0300 2000 100
ESB- Electricity Company	01 8529534	
Telecommunications – Eircom	1800 475 475	

7.5 Internal Contacts

Names and position of staff authorised and trainers to activate and co-ordinate the plan. Staff to be contacted if need to move or evacuate the site		
Other Staff:		
Managing Director		
Site Manager		
Environmental Manager		
Health & Safety Manager		

7.6 Chemical Product & Waste Inventory

Trade name/ substance	Solid/liquid/ gas or powder	UN number	Max amount	Location marked on site plan	Type of Containment	Relevant health & Environmental properties

7.7 Pollution Prevention Equipment Inventory (On/Off-Site Resources)			
Type	**Location**	**Amount**	**Staff contact**

For example:

- *Personal protective Equipment (PPE) available that should be worn*
- *absorbents*
- *drain mats/covers*
- *pipe blockers*
- *booms*
- *pumps*
- *sandbags*
- *silt fencing*
- *over drums*

IF ANY OF THIS EQUIPMENT REQUIRES SPECIALIST TRAINING – STATE WHO HAS BEEN TRAINED IN ITS USE AND DATE OF TRAINING (attach evidence where possible).

7.8 List of Staff Trained in the Use of Spill kits and Booms

Name	Date of Training

7.9 Site Environmental Incident Report Form

Site		Date	
Time		Weather:	
Report By:		Position:	
Tirawley Wind Farm personnel present:		Position:	
Contractor Personnel Present:		Position:	

Description of Incident

Item Spilled	
Estimate of Volume of Spillage	

List of actions followed once incident was noted	Time	Corrective Action By	
		Action	By
Who first observed incident?			
First action			
Next Action			
Time Pollution Hotline was contacted			
Other			

Details of Clean-Up contractor or how contamination was removed from site:

Details of how this could be avoided in future:	
Details of review of internal procedures as result of this incident:	

DATE REPORT COMPLETED_____

7.10 Site Environmental Audit Form

Site:		Date:	
Time:		Weather conditions:	
Report by:		Position:	
Tirawley Wind Farm personnel present:		Position:	
Contractor personnel present:		Position:	

Item	Questions	Yes	No	Corrective Action Required	
				Action	By
1. Miscellaneous					
1.01	Does the contractor carry out regular internal environment audits on the site? Are recommendations recorded and is corrective action monitored?				
1.02	Have any environment incidents occurred and have these been reported as per on site procedure?				
1.03	Does the site induction contain a section on environmental requirements, including spill procedures, and is this communicated effectively?				
2. Land					
2.01	Are areas of hard standing (excluding bunded and refuelling areas) appropriately drained?				
2.02	Have local roads been inspected and cleaned where necessary?				
2.03	Has all test pitting and soil stripping been monitored by an archaeologist?				
2.04	Have all site clearance works been checked by an ecologist prior to works?				

Item	Questions	Yes	No	Corrective Action Required	
				Action	By
3. Material and equipment					
3.01	Is there knowledge of the IFI |Guidelines on Protection of Fisheries During Construction Works in and Adjacent to Waters (2016) and OPW Environmental Guidance: Drainage Maintenance & Construction (2019)				
3.02	Are transformers/ generators located in secondary containment bunds?				
3.03	Are all bunds capable of containing 110% of the volume of the largest container?				
3.04	Is refuelling carried out in a designated refuelling bay?				
3.05	Does all site drainage on hard standing drain to an oil interceptor?				
3.06	Is the designated area for oil, fuel and chemical storage appropriately sited (i.e. on hard standing at least 10m from a watercourse)?				
3.07	Are there procedures in place to monitor bund integrity and mange bund rainwater levels? Are these followed and recorded?				
3.08	Is there awareness that oil or residue from contaminated water removed from bunds should be disposed of as special waste and not discharged to land or the water environment? (oil absorbent materials (pads etc.) should be used first)				
3.09	Are all drums and mobile plant (e.g. generators) placed on drip trays more than 10m from any watercourse?				
3.10	Is all plant maintained in a good state of leaks? Are there records of this?				
3.11	Are there adequate spill kits available and stored in close proximity to potential risks?				
3.12	Are all refuelling browsers double skinned, locked when not in use, and in a good state of repair?				
3.13	Is there evidence of unmanaged/ unrecorded fuel / oil spillages on site?				
3.14	Are dry or wet wheel washing facilities fully operational and effective?				
3.15	If wet wheel washing facilities are required, are these closed systems				

Item	Questions	Yes	No	Corrective Action Required	
				Action	By
	with no discharge to the water environment?				
3.16	Are there laboratory certificates (accredited by the Irish National Accreditation Board) to confirm that imported material stone aggregate brought onto site is free from any contamination?				
4. Noise, Dust and Light					
4.01	Are there facilities to dampen stockpiles and site working areas/roads to suppress dust?				
4.02	Are vehicles carrying loose material sheeted at all times?				
4.03	Are construction works, or deliveries of materials to and from the development, audible at noise sensitive premises?				
4.04	Has all external construction lighting received the approval of the planning authority?				
5. Waste					
5.01	Is the site tidy and free from litter?				
5.02	Is there evidence of waste beyond the site boundary?				
5.03	Is waste segregated and kept securely in containers in clearly designated areas?				
5.04	Does all waste leaving the site have the appropriate duty of care paperwork?				
5.05	Is all waste leaving the site being taken to an appropriately licenced site?				
5.06	Does all special/ hazardous waste (e.g. oil contaminated soils, waste oil) have the appropriate Special Waste Consignment Note?				
5.07	Is material re-used/recycled on site where possible?				
5.08	Are waste management practices in line with the site waste management plan?				
5.09	Are relevant Waste Management Exemptions in place for use of waste on site (e.g. use of waste concrete to create foundation sub-base)?				
5.10	Is there any evidence of burning on site?				
5.11	Is there any evidence of unlicensed burial of waste?				

Item	Questions	Yes	No	Corrective Action Required	
				Action	By
6. Water					
6.01	Do all discharges to land or watercourses have appropriate authorisation from Local Authorities /IFI?				
6.02	Does all watercourse engineering (bank protection, crossing etc.) have the appropriate authorization from Local Authorities / IFI?				
6.03	Do any abstractions from a watercourse or groundwater body have the appropriate authorization from Local Authority / IFI?				
6.04	Has confirmation for the SUDS design for access roads been gained from Local Authority / IFI?				
6.05	Are cut-off ditches installed on the uphill side of the working area to avoid contaminated surface water run-off?				
6.06	Have field drain been diverted where necessary?				
6.07	Is adequate treatment (e.g. settlement tank/lagoons/discharge to land) provided to prevent silt contaminated water entering watercourses and groundwater?				
6.08	Has vegetation removal/ clearance of the site been minimised to avoid unnecessary areas of bare ground?				
6.09	Have buffer-strips been left between working area and watercourses?				
6.10	Is plant operating in the watercourse?				
6.11	Have all culverts been installed at the base of stockpiles situated within close proximity to watercourses?				
6.12	Have silt fences been installed at the base of stockpiles situated within close proximity to watercourses?				
6.13	Are there adequate controls on site construction roads to minimize sediment runoff into watercourses (in particular, are there adequate flow attenuation measures within surface drain)?				
6.14	Are there any sign of decaying straw bales in water courses? (this could lead to organic pollution of the water course)				
6.15	Are silt traps regularly maintained?				

Item	Questions	Yes	No	Corrective Action Required	
				Action	By
6.16	Has ease of maintenance been considered in the design of permanent drainage features?				
6.17	Is there evidence of contamination of any watercourse (e.g. with oil, sediment, concrete, waste) in the vicinity of the works?				
6.18	Is monitoring of potential impacts on watercourses carried out on a regular basis and fully recorded?				
6.19	Are dewatering operations being carried out in such a way to minimise sediment contamination?				
6.20	Is drainage and run off in concrete batching areas adequate?				
6.21	Are adequate pollution prevention measures considered and put in place during concrete pours?				
7. Landscape					
7.01	Have earthworks been designed to promote successful re- instatement of vegetation?				
7.02	Are reinstatement and restoration works being implemented in a timely manner as per the requirements of the Contract?				
8. Ecology					
8.01	Have storage sites (soil, plant etc.) been sited on areas of lower quality habitat where possible?				
8.02	Is the ECoW a member of the institute of Ecology and /or Environmental management as required by planning conditions?				
8.03	Have buffer zones been constructed and maintained around designated protected species exclusion areas (e.g. red squirrel dreys, water vole habitats, otter holts, badger holts etc.)?				
8.04	Have toolbox talks on the subject of ecology and environmental responsibilities on site been delivered? Have attendance record been maintained for these?				

Item	Questions	Yes	No	Corrective Action Required	
				Action	By
9. Documentation Check					
9.01	Start-up meeting record				
9.02	Full contacts list in Section 3, Table 3.0 of CEMP				
9.03	Induction records				
9.04	Pollution Prevention Measures Register				
9.05	Geotechnical Risk Register				
9.06	Weekly meeting minutes				
9.07	Records of environmental checks and routine monitoring of mitigation measures				
9.10	Water Quality Monitoring Results				
9.11	Safety and Environmental Awareness Reports (SEARs). Filed and entered on database?				
9.12	Safety and Environmental Audit Reports for the site. (If yes, insert date of last audit_____)				
9.13	Contractor's Environmental Plans (or Construction Method Statements):				