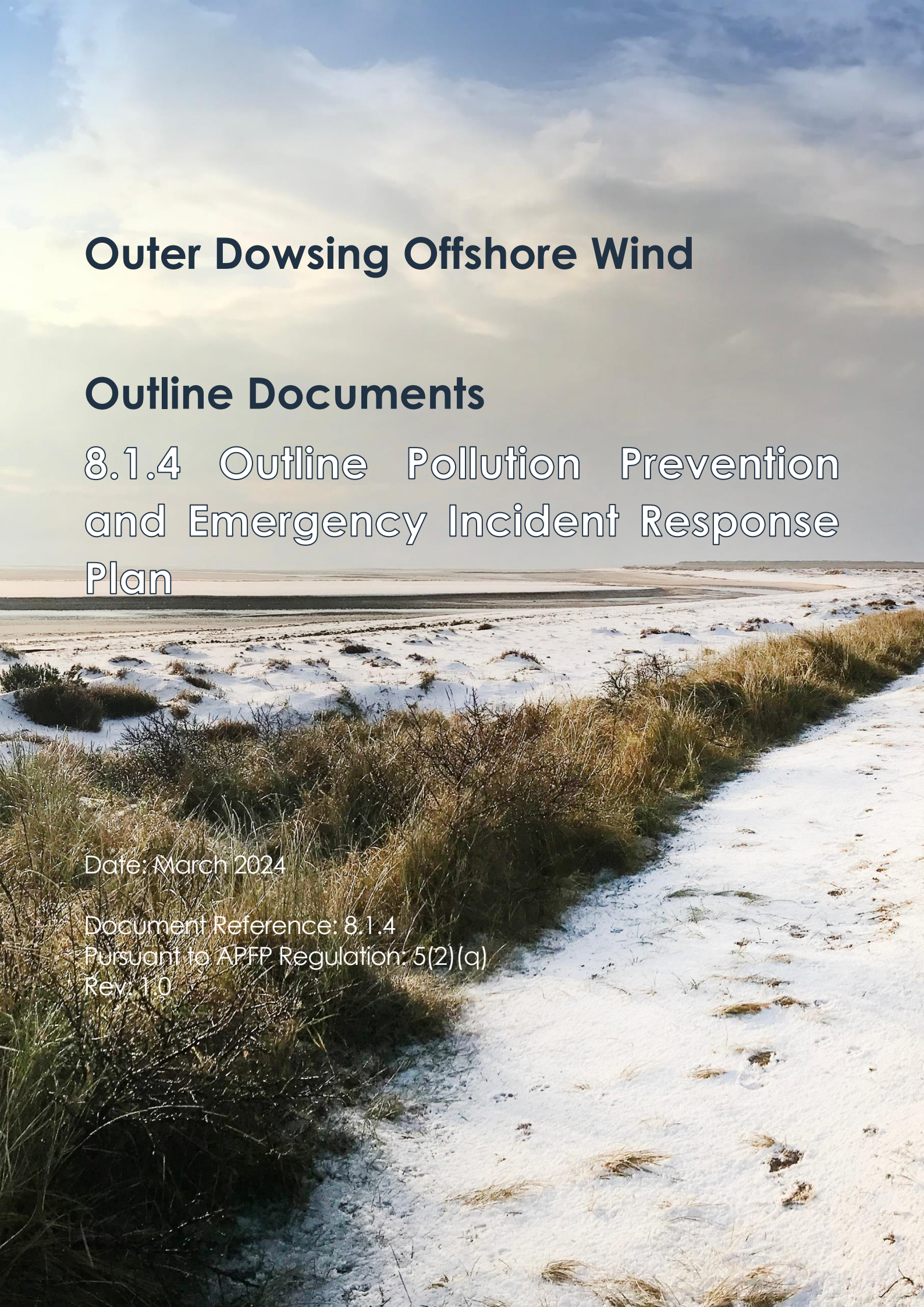

Outer Dowsing Offshore Wind

Outline Documents

8.1.4 Outline Pollution Prevention and Emergency Incident Response Plan

Date: March 2024

Document Reference: 8.1.4
Pursuant to APFP Regulation: 5(2)(q)
Rev: 1.0

Company:	**Outer Dowsing Offshore Wind**	Asset:	**Whole Asset**
Project:	**Whole Wind Farm**	Sub Project/Package:	Whole Asset
Document Title or Description:	8.1.4 Outline Pollution Prevention and Emergency Incident Response Plan		
Internal Document Number:	PP1-ODOW-DEV-CS-PLA-0016	3rd Party Doc No (If applicable):	N/A

Rev No.	Date	Status / Reason for Issue	Author	Checked by	Reviewed by	Approved by
1.0	March 2024	DCO Application	SLR	GoBe	Shepherd and Wedderburn	Outer Dowsing

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Acronyms & Terminology

Abbreviations / Acronyms

Abbreviation / Acronym	Description
CIRIA	Construction Industry Research and Information Association
CMS	Construction Method Statement
CoCP	Code of Construction Practice
DCO	Development Consent Order
EA	Environment Agency
ECoW	Ecological Clerk of Works
ES	Environmental Statement
HDD	Horizontal Directional Drilling
HSSE	Health, Safety, Security & Environment
IDB	Internal Drainage Board
LCC	Lincolnshire County Council
MHWS	Mean High Water Springs
OWF	Offshore Wind Farm
PEIR	Preliminary Environmental Information Report
PPEIRP	Pollution Prevention and Emergency Incident Response Plan
SuDS	Sustainable Drainage System

Terminology

Term	Definition
Development Consent Order (DCO)	An order made under the Planning Act 2008 granting development consent for a Nationally Significant Infrastructure Project (NSIP) from the Secretary of State (SoS) for Department for Energy Security and Net Zero (DESNZ).
Effect	Term used to express the consequence of an impact. The significance of an effect is determined by correlating the magnitude of an impact with the sensitivity of a receptor, in accordance with defined significance criteria.
Environmental Statement (ES)	The suite of documents that detail the processes and results of the Environmental Impact Assessment (EIA).
Impact	An impact to the receiving environment is defined as any change to its baseline condition, either adverse or beneficial.
Intertidal	The area between Mean High Water Springs (MHWS) and Mean Low Water Springs (MLWS)
Landfall	The location at the land-sea interface where the offshore export cable will come ashore.

Term	Definition
Mitigation	Mitigation measures are commitments made by the Project to reduce and/or eliminate the potential for significant effects to arise as a result of the Project. Mitigation measures can be embedded (part of the project design) or secondarily added to reduce impacts in the case of potentially significant effects.
Onshore Infrastructure	The combined name for all onshore infrastructure associated with the Project from landfall to grid connection.
Outer Dowsing Offshore Wind (ODOW)	The Project.
Preliminary Environmental Information Report (PEIR)	The PEIR was written in the style of a draft Environmental Statement (ES) and provided information to support and inform the statutory consultation process in the pre-application phase. Following that consultation, the PEIR documentation has been updated to produce the Project's ES that accompanies the application for the Development Consent Order (DCO).
Receptor	A distinct part of the environment on which effects could occur and can be the subject of specific assessments. Examples of receptors include species (or groups) of animals or plants, people (often categorised further such as 'residential' or those using areas for amenity or recreation), watercourses etc.
The Project	Outer Dowsing Offshore Wind including proposed onshore and offshore infrastructure

Reference Documentation

Document Number	Title
8.1	Outline Code of Construction Practice
8.4	Outline Project Environmental Management Plan

1 Introduction

1.1 Purpose of this Document

1. This Outline Pollution Prevention and Emergency Incident Response Plan (PPEIRP) is provided as part of the Outline Code of Construction Practice (CoCP) (document 8.1) submitted with the Development Consent Order (DCO) application.
2. This is an outline document that, by reference to the assessments reported in the Environmental Statement (ES), sets out the key elements that will be secured in the detailed PPEIRP which Outer Dowsing Offshore Wind (the Project) will be required to submit to Lincolnshire County Council (LCC) for approval under a requirement of the DCO.
3. This Outline PPEIRP sets out the pollution prevention measures, and emergency incident responses, which will be implemented by the Project and its contractors during construction and should be read in conjunction with the other supporting appendices which form the Outline CoCP (document 8.1).

1.2 Scope of this Document

4. For the avoidance of doubt, this Outline PPEIRP relates to the onshore elements of the Project only (i.e., landward of Mean Low Water Springs (MLWS)).
5. In the case of the landfall installation, this will involve both onshore and offshore works. The works within the intertidal area (i.e. between MLWS and MHWS) will adhere to both the PPEIRP and the equivalent offshore documents, particularly the Project Environmental Management Plan (document 8.4), which contains the Marine Pollution Contingency Plan.

1.3 Objective

6. In respect of pollution prevention, the objective of the PPEIRP is to ensure the prevention of pollution to land, air, or water; compliance with current environmental legislation; and, to provide a benchmark for good practice such that all possible preventative measures will be taken to avoid pollution during onshore construction works.

1.4 Relevant Guidance

7. Works will be undertaken in accordance with good practice advice. This will include, but is not limited to:
    - Control of Water Pollution from Construction Sites (C532), Construction Industry Research and Information Association (CIRIA 2001);
    - Environmental Good Practice on Site (C741), (CIRIA 2015a);
    - Control of Water Pollution from Linear Construction Projects (C648), (CIRIA 2006a);
    - Control of Water Pollution from Linear Construction Projects: Site Guide (C649), (CIRIA 2006b);

- The Sustainable Drainage System (SuDS) Manual (C753), (CIRIA 2015b).

8. The CIRIA guidance provides environmental good practice for the control of water pollution arising from construction activities. It focuses on the potential sources of water pollution from within construction sites and the effective methods of preventing its occurrence.

2 Pollution Prevention – Mitigation

2.1 Definitions and Potential Pollution Sources

9. Pollution may be defined as the introduction of a contaminant into air, land, or water, resulting in an impact (generally negative) to the environment into which the substance is released.
10. Pollution may arise as a result of the poor planning and/or implementation of management procedures associated with traffic, plant and materials handling, waste materials management, surface water and drainage management, and concrete management.
11. Contaminants associated with construction of the onshore works may be both chemical (e.g., released fuels, oils, lubricants, surfactants and other cleaning chemicals, flocculants etc.) as well as physical (e.g., dust and other airborne particulates, siltation/sedimentation of watercourses).
12. There are a number of potential sources of pollution from the onshore construction works which may adversely impact upon both terrestrial and aquatic ecosystems:
    - Direct disturbance of the banks and bed of rivers during watercourse crossing construction, repair and/or upgrade works;
    - Pumping of standing water required for de-watering of excavations, or as required for drainage management purposes;
    - Run-off from exposed ground, excavations, and material stockpiles (aggregate and excavated/overburden peat and soil), and haul routes;
    - Run-off from tracks, bridges, and culverts at watercourse crossings;
    - Run-off from recently reinstated areas (e.g., road verges);
    - Cement and cement wash from concrete batching plants, storage areas and other areas where cement grout or concrete is being applied;
    - Plant washing and vehicle wheel wash areas;
    - Fuel and chemical storage/refuelling areas;
    - Release of drilling fluids during Horizontal Directional Drilling (HDD) operations (other trenchless crossing techniques may be used);
    - Leaking/vandalised plant and equipment; and
    - Sewage and wastewater from construction compound and permanent control building amenities.
13. In any areas where there is an increased risk of hazardous substance spillage (e.g., storage compounds), additional precautions will be undertaken. These would include berms and bunding in accordance with relevant guidance, impermeable bases, sustainable drainage systems and siting away from open drainage channels.
14. Good construction practice and appropriate mitigation and monitoring are therefore essential for prevention of potential pollution from any of the sources noted above.

2.2 General Pollution Prevention Measures

15. The following general pollution prevention measures will be applied during the course of the onshore construction works in accordance with the guidelines referred to above. A number of these points are addressed in further detail in the remainder of this outline PPEIRP.
16. Construction workers will follow good site practice and hygiene practice.
17. Areas at risk of spillage, such as vehicle maintenance areas and hazardous substance stores (including fuel, oils, and chemicals) will be bunded and carefully sited to minimise the risk of hazardous substances entering drainage systems or local watercourses. Additionally, the bunded areas will have impermeable bases to limit the potential for migration of contaminants into groundwater following any leakage/spillage. Bunds used to store fuel, oil or other potentially polluting substances will have a 110% capacity.
18. All fuel and chemical storage will comply with relevant storage regulations. Any refuelling of machinery will be undertaken within designated areas where spillages can be easily contained. The following measures will be implemented on site for the storage of materials:
    - All oil and diesel storage facilities would be at least 30m from any watercourse and at least 50m from any borehole or well, where practicable;
    - A spill procedure will be documented, and suitably sized and stocked spill kits kept in the vicinity of potentially hazardous materials storage areas;
    - Spill kits and drip trays would be provided for all equipment and at locations where any liquids are stored and dispensed;
    - Storage facilities would be provided for solid materials to prevent deterioration of the materials and their escape;
    - Storage facilities would be kept secure to prevent acts of vandalism that could result in leaks or spills; and
    - All containers of any size would be correctly labelled indicating their contents and any hazard warning signs.
19. All measures set out within the Control of Pollution (Oil Storage) (England) Regulations 2001 will be complied with, where applicable. The measures that will be implemented on site for the prevention of spills will include, but are not limited to:
    - Fuel tanks and mobile bowsers (and any other equipment that contains oil and other fuels) would have a secondary containment, for example, double skinned tanks;
    - Fuel pipes would not extend beyond the bund wall and would have a lockable cap secured with a chain;
    - Any tap or valve permanently attached to a tank or bowser through which fuel can discharge, would be fitted with a lock; and
    - All valves, pumps, and trigger guns would be turned off and locked when not in use. All caps on fuel pipes would be locked when not in use.

20. Suitable precautions would be taken to prevent spillages from equipment containing small quantities of hazardous substances (for example, chainsaws and jerry cans) including:
    - Each container or piece of equipment would be stored in its own drip tray made of a material suitable for the substance being handled; and
    - Containers and equipment would be stored on a firm, level surface.
21. Where fuel is delivered through a pipe permanently attached to a tank or bowser, the pipe would be fitted with a manually operated pump or a valve at the delivery end which closes automatically when not in use.
22. The following management controls would be implemented;
    - The pump or valve would be fitted with a lock;
    - The pipe would be fitted with a lockable valve at the end where it leaves the tank or bowser;
    - Tanks and bunds would be protected from vehicle impact damage; and
    - Tanks would be labelled with contents and capacity information.
23. Where oil drums are over 200 litres (in accordance with the Oil Storage Regulations 2001) it would be ensured that:
    - Multiple drums and containers have suitable secondary containment with sufficient capacity to contain at least 25% of the total volume of the containers or 110% of the largest container, whichever is the greatest;
    - Drum storage areas would be covered to prevent rainwater getting into bunds and drum pallets and suitable monitoring will be maintained to ensure the associated bunding area is free of stored water;
    - Drums would be labelled and positioned such that leaks cannot overshoot the bund or drip tray wall; and
    - All containers are stored securely when the site is unattended.
24. For deliveries and dispensing activities, it would be ensured that:
    - Site-specific procedures are in place for bulk deliveries;
    - All suppliers will be briefed prior to entering the site;
    - Delivery points and vehicle routes are clearly marked with signage;
    - Emergency procedures are displayed, and a suitably sized spill kit is available at all delivery points, and staff and relevant contractors are trained in these procedures and the use of spill kits;
    - Suitable facilities (for example, drip trays, drum trolleys, funnels) that meet the site's specific dispensing needs are maintained and used;
    - Tank capacities and current contents levels are checked prior to accepting a delivery to ensure that they are in line with capacity requirements;

- All deliveries are supervised throughout the delivery operation;
- Spill prevention equipment is used during dispensing activities; and
- All spillages occurring during dispensing and handling activities are cleared up and reported via the appropriate site manager/agent and are dealt with in accordance with the relevant construction management plans for the site.

25. All flammable and hazardous substances would be kept in a secure bunded facility such as a cabinet or tank constructed of materials which are chemically resistant to its contents, suitably ventilated with appropriate signage and monitoring in place.
26. The use of vehicles and plant poses similar risks to those posed by storage of liquids. Fuel and oil may leak from such equipment which may enter drains and/or watercourses, as well as contaminating the ground itself. The following measures would be implemented to reduce this risk:
    - Vehicles and plant provided for use on the site would be in good working order and are free from leaks;
    - Sufficient spill kits would be carried on all site-based vehicles where required;
    - Any hired vehicles and plant would be checked on delivery and not accepted if they are not in good working order for example, leaking, excessive fumes and noise;
    - Routine plant and vehicle checks will be conducted to ensure fuel storage and engine condition is satisfactory and that no fuel or chemical release will occur during site operations;
    - Vehicles and plant would not park near or over drains and would be washed in accordance with the requirements of the relevant management plans;
    - Employee-owned vehicles would not be driven or parked in construction areas unless authorised to do so;
    - Refuelling and lubricating of vehicles and plant would be carried out on hardstanding using drip trays and associated tools/ equipment;
    - Vehicles and plant would not be overfilled with fuel; and
    - Plant containing oils would be inspected daily and maintained to both prevent and identify leaks.
27. The following measures will be implemented to minimise the risk of pollution through release of silts and sediments:
    - Stockpiling of excavated materials during earthworks would be temporary and would only be permitted in designated areas. Designated stockpile areas would be located a minimum of 10m from any open watercourse features where practicable;
    - Disturbance to areas close to watercourses will be reduced to the minimum necessary for the work;
    - Excavated material will be placed in such a way as to avoid any disturbance of areas close to the banks of watercourses and to prevent spillage into water features;

- Use of sediment fences along watercourses when working in close proximity to prevent sediment being washed into watercourses;
- Covers will be used by lorries transporting materials to/from site to prevent releases of dust/sediment to watercourses or drains; and
- If applicable, storage of stockpiled materials should be on an impermeable surface to prevent leaching of contaminants and covered when not in use to prevent materials being dispersed by wind or rainfall run-off.

2.3 Frac-out Management

28. The fluid used during drilling for aspects of the onshore elements of the Project may comprise of bentonite as the primary base, which is usually delivered to site as a powder and then rehydrated with water.
29. Bentonite can be lost to either the surface during drilling or lost to voids and the ground during drilling in ground with high permeability.
30. The following measures will be implemented to minimise the risk of bentonite being lost to either the surface or the ground during storage and mixing:
    - Ensure bentonite storage silos are bunded;
    - Surround areas where bentonite is mixed with a bund to prevent it from entering surface water drains; and
    - Position bentonite storage silos a minimum of 10m from surface water drains.
31. The following measures will be implemented to minimise the risk of bentonite being lost to either the surface or the ground during use:
    - Detailed design of all proposed drilling activities showing geological layers and intended drill path;
    - Conduct hydraulic fracture analysis and calculations for each drill and plot annular pressure during the drilling to ensure the maximum allowable pressure is not exceeded;
    - Ensure cuttings are removed from the borehole;
    - Monitoring the quantity of drilling fluid being used and drilling fluid returns;
    - Ensure the drilling fluid is of sufficient viscosity and properties for the ground being drilled;
    - Ensure during drilling a person is checking for any bentonite breakout and if detected stop drilling immediately to contain and remove the spill; and
    - Have a stock of sandbags on site to contain and bund a breakout if it occurs, and equipment to pump the bentonite back into the entry pit.
32. The final Pollution Prevention and Emergency Incident Response Plan will include a Frac-out Management Plan which will set out a risk assessment for frac-outs and outline potential emergency accesses in the event of a frac-out.

3 Pollution Prevention – Monitoring and Controls

3.1 Monitoring

33. On-site meetings /inspections will be carried out as necessary to confirm the appropriate use of mitigation measures identified within this outline PPEIRP. These meetings/inspections will highlight any further issues/measures which may be relevant either prior to commencement or during the works.
34. Monitoring will be carried out to ensure compliance with this outline PPEIRP and to ensure that all mitigation measures put in place are maintained and continue to be effective.
35. Regular checks of plant and equipment will be undertaken by the Principal Contractor to identify any oil or fuel leaks and to confirm the condition of the plant. Records will be kept of all inspections/findings for review. Regular checks for visual evidence of contamination/sediment will also be made alongside watercourses, nearby working areas and in areas of surface water discharge.
36. All plant and machinery will be maintained in a good condition and any maintenance required is to be undertaken in controlled areas.

3.2 Records

37. Records will be kept for all initial, final, and routine monitoring inspections of all mechanical plant and working construction areas, as well as ecological and environmental issues. These records will be stored in an agreed location on site and be available for internal and external monitoring as required.
38. Record sheets will detail the date, location of inspection, frequency, findings, appropriate person/s notified and identified actions as necessary. Records of any spills detailing the location, date/time, volume, material spilt, clean-up operation, investigation/report/lessons learnt will also be kept.

3.3 Training

39. All employees, contractors, subcontractors, suppliers, and visitors to the site will be notified via a site induction of the requirements on site for pollution prevention.
40. All construction workers will be briefed on the importance of water quality, the location of surface water features and the location and use of accidental spill kits, bunds, and drip trays (or hydrocarbon absorbing alternatives) for static plant or parked up plant as part of the site induction.
41. Construction workers will be trained in the implementation of the emergency incident response plan which appears in section 4 of this PPEIRP.
42. Through toolbox talks, construction workers will be educated on those aspects of environmental management as appropriate to the task assigned to them.

43. The Principal Contractor will be responsible for overseeing and enforcing pollution prevention procedures such that potential adverse impacts to human health or the environment from any activities involving handling of potential pollutants are avoided or mitigated.

4 Emergency Incident Response

44. All incidents associated with the construction of the onshore infrastructure of the Project, including environmental incidents and non-conformance with the PPEIRP would be reported and investigated using the procedures that will be detailed within the PPEIRP.
45. The following procedure would be followed in the event of an incident and would be detailed further in the PPEIRP:
    - Works would stop within the vicinity of the incident;
    - The Health, Safety, Security & Environment (HSSE) Manager would be contacted;
    - The scale of the incident would be assessed:
        - if the incident was controllable by staff on Site, remedial action would be taken immediately in accordance with any relevant management plan;
        - if the incident could not be controlled by the staff on Site, emergency assistance would be sought;
    - The appropriate enforcing authority would be contacted and informed, including:
        - Environment Agency (EA) for incidents relating to or affecting rivers, groundwater, and major emissions to atmosphere;
        - The local sewerage undertaker for incidents affecting sewers;
        - The LCC Environmental Health Department for incidents that could affect the public;
        - The Food Standards Agency for incidents that have the potential to affect food through deposition on crops or land used for grazing livestock.
    - Where relevant, the appropriate Internal Drainage Board (IDB) for IDB managed drains would be contacted and informed;
    - The Project would instigate an investigation into the occurrence of the incident;
    - The findings would be sent to the appropriate enforcing authority where necessary; and
    - An action plan would be prepared to determine why the incident occurred and whether any modifications to working practices would be required to prevent a recurrence. If necessary, the CoCP and Health, Safety and Environmental Plan would be updated (and any other plans as appropriate) and all workers would be notified.

5 Clean-up and Restoration after a Potential Incident

46. There is no advance restoration plan drawn up for the eventual clean-up and restoration of the site following a major incident. Where restoration is required, an appropriate specific plan will be developed following the initial response and clean up. The majority of any restoration of the site is likely to involve the removal of damaged structures and rebuilding of man-made structures on the site that have been affected. Details of this would be dependent on the specific details of any major incident.
47. Relevant measures will be applied for ecological receptors that are known to be present, within or near to the construction site to ensure they remain viable. The Ecological Clerk of Works (ECoW) will advise regarding restoration and the potential impacts to wildlife.
48. In the event of a spillage in the area, containment measures will be employed to prevent harm to the environment. If an event is sufficient to cause severe impact to an ecological receptor, measures would be put in place to restore or replace what is lost.
49. It is possible that a major incident could compromise the integrity of containment vessels and result in a significant spillage on-site. Many consumables used on construction sites (e.g., fuels, lubricants, and cleaning chemicals) are considered dangerous to the environment (toxic to aquatic organisms and may cause long term adverse effects in the aquatic environment) and so the key objective is that any spillage is contained effectively.
50. Locally, surface clean-up of a diesel spillage would be undertaken by using spillage control materials on the areas of the site affected. This may include removal and disposal of surface topsoil effected by the spill. Diesel may enter the site drainage system, and this must be considered in the clean-up process. Site specific drainage plans shall be held on site.
51. Temporary arrangements will be made for storing any contaminated material on site. An appropriate designated position where it may be stored will be specified. However, for substantial quantities of any substance, which is classified as dangerous to the environment, (diesel, water treatment chemicals and waste oil), waste material relating to these would not be stored on-site for long periods of time.