

XLINKS' MOROCCO-UK POWER PROJECT

Appendix A – Outline Pollution Prevention Plan

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XLINKS' MOROCCO – UK POWER PROJECT

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Glossary

Term	Meaning
Applicant	Xlinks' 1 Limited.
Aquifer	A subsurface layer or layers of rock or other geological strata of sufficient porosity and permeability to allow either a significant flow of groundwater or the abstraction of significant quantities of groundwater.
Converter Site	The Converter Site is proposed to be located to the immediate west of the existing Alverdiscott Substation Site in north Devon. The Converter Site would contain two converter stations (known as Bipole 1 and Bipole 2) and associated infrastructure, buildings and landscaping.
Converter station	Part of an electrical transmission and distribution system. Converter stations convert electricity from Direct Current to Alternating Current, or vice versa.
Environmental Incident	Any event, activity or condition that causes, could have caused, or has the potential to cause damage to people, damage to property or the environment.
Landfall	The proposed area in which the offshore cables make landfall in the United Kingdom (come on shore) and the transitional area between the offshore cabling and the onshore cabling. This term applies to the entire landfall area at Cornborough Range, Devon, between Mean Low Water Springs and the transition joint bays inclusive of all construction works, including the offshore and onshore cable routes, and landfall compound(s).
Onshore Infrastructure Area	The proposed infrastructure area within the Order Limits landward of Mean High Water Springs. The Onshore Infrastructure Area comprises the transition joint bays, onshore HVDC Cables, converter stations, HVAC Cables, highways improvements, utility diversions and associated temporary and permanent infrastructure including temporary compound areas and permanent accesses.
Pollution	The harmful impact on the local atmospheric, aquatic or land environment caused by the release of hazardous or nuisance-causing substances; excessive noise and vibration.
Proposed Development	The element of Xlinks' Morocco-UK Power Project within the UK. The Proposed Development covers all works required to construct and operate the offshore cables (from the UK Exclusive Economic Zone to Landfall), Landfall, onshore Direct Current and Alternating Current cables, converter stations, and highways improvements.

Acronyms

Acronym	Meaning
CIRIA	Construction Industry Research and Information Association
COSHH	Control of Substances Hazardous to Health
CWS	County Wildlife Site
DC	Direct Current
EA	Environment Agency
ES	Environmental Statement
HVAC	High Voltage Alternating Current
HVDC	High Voltage Direct Current
IBC	Intermediate Bulk Containers
On-CEMP	Onshore Construction Environmental Management Plan
PPG	Pollution Prevention Guidelines
SSSI	Site of Special Scientific Interest
SuDS	Sustainable Drainage Systems
UXO	Unexploded Ordnance

Units

Units	Meaning
L	Litres
%	Percentage

1 OUTLINE POLLUTION PREVENTION PLAN

1.1 Introduction

Background

- 1.1.1 This document forms the Outline Pollution Prevention Plan, which has been prepared for the United Kingdom (UK) elements of Xlinks' Morocco-UK Power Project (the 'Project'). For ease of reference, the UK elements of the Project are referred to as the 'Proposed Development'.
- 1.1.2 RPS Consulting Services Ltd (RPS) was commissioned by Xlinks 1 Limited (the 'Applicant') to undertake the Outline Pollution Prevention Plan for the onshore construction elements of the Proposed Development. The Outline Pollution Prevention Plan forms Appendix A to the Outline Onshore Construction Environmental Management Plan (On-CEMP) (document reference 7.7) which seeks to manage the environmental impacts of the construction process.
- 1.1.3 The offshore construction activities would be covered by the Outline Offshore Construction Environmental Management Plan, which forms part of the application for development consent (document reference 7.9).
- 1.1.4 This Outline Pollution Prevention Plan seeks to manage the risk of pollution from both the preliminary and construction stages of the onshore elements of the Proposed Development. These elements occur landward of Mean High Water Springs (MHWS) and comprise the following:
- Converter stations: two independent converter stations, known as Bipole 1 and Bipole 2, to convert electricity from Direct Current (DC) to Alternating Current (AC) before transmission to the national grid.
 - Onshore High Voltage Alternating Current (HVAC) Cables: these cables would connect the proposed converter stations to the national grid.
 - Onshore High Voltage Direct Current (HVDC) Cables: these cables would link the converter stations to the Landfall.
 - Highways improvements: improvements to the existing road network to facilitate access during construction and operation and maintenance, and decommissioning, including road widening, and new or improved junctions.
 - Temporary and permanent utility connections: temporary and permanent utility connections to the construction compounds and the Converter Site.
 - Permanent utility diversions: permanent diversion of existing utility services within the Onshore Infrastructure Area.
 - Landfall: the site at Cornborough Range where the offshore cables are joined to the onshore cables. This term applies to the entire landfall area between Mean Low Water Springs (MLWS) and the transition joint bays. This includes all construction works, including the offshore and onshore cable routes, and compound(s) at Landfall.

- 1.1.5 In addition to these elements, the Outline Pollution Prevention Plan also considers the temporary construction compounds, storage areas and accesses required to support the construction of the Proposed Development.
- 1.1.6 The onshore elements of the Proposed Development listed above coincide with the local authority area of Torridge District Council (and Devon County Council at the county level).

Purpose of the Outline Pollution Prevention Plan

- 1.1.7 The draft Development Consent Order (DCO) (document reference 3.1) includes a requirement for the preparation of a final On-CEMP(s). The final On-CEMP(s) will be supported by a series of management plans including a Pollution Prevention Plan (as part of the final On-CEMP(s)), which will be submitted to and approved by the relevant planning authority prior to the commencement of construction.
- 1.1.8 The purpose of this Outline Pollution Prevention Plan is to set out the key construction pollution control measures that will be required during construction of the Proposed Development.
- 1.1.9 This is an outline document based on the design set out in Volume 1, Chapter 3: Project Description of the Environmental Statement (ES) (document reference 6.1.3) and includes measures that have been identified as part of the Environmental Impact Assessment process.
- 1.1.10 The Outline Pollution Prevention Plan should be read in conjunction with the Outline On-CEMP (document reference 7.7) and its supporting appendices.
- 1.1.11 This Outline Pollution Prevention Plan references the following documents:
- Volume 2, Chapter 4: Geology, Hydrogeology and Ground Conditions of the ES (document reference 6.2.4);
 - Volume 2, Appendix 4.1: Desk Top Study Preliminary Risk Assessment and Site Reconnaissance of the ES (document reference 6.2.4.1); and
 - Volume 2, Appendix 4.2: Private Water Supply Desk Based Assessment of the ES (document reference 6.2.4.2).

1.2 Scope of the Outline Pollution Prevention Plan

- 1.2.1 The scope of this onshore Outline Pollution Prevention Plan applies to both the preliminary and construction stages of the Proposed Development, located landward of MHWS. The plan does not apply to activities associated with offshore works (i.e. seaward of MHWS).
- 1.2.2 Onshore preliminary activities will be undertaken prior to the commencement of construction. These works comprise the following:
- pre-construction archaeological investigations;
 - early planting or landscaping works, where appropriate;
 - ecological and archaeological mitigation;
 - environmental surveys and monitoring;

- site clearance (including vegetation clearance and site levelling);
- investigations for the purpose of assessing ground conditions such as:
 - pre-entry soil surveys; and
 - drainage surveys.
- erection of fencing and installation of temporary construction drainage;
- remedial work in respect of any contamination or other adverse ground conditions;
- the diversion of existing services and the laying of temporary services;
- the diversion or undergrounding of overhead cabling;
- site security works;
- establishing compounds and the erection of temporary hardstanding, buildings (e.g. welfare facilities), structures or enclosures;
- creation of site accesses;
- temporary display of site notices and site advertisements; and
- receipt and erection of construction plant and equipment.

1.2.3 The onshore preliminary activities listed in **section 1.2.2** above will be carried out in accordance with the measures set out in this Outline Pollution Prevention Plan(s) as part of the Outline On-CEMP(s). This and other management plans in their outline form will be taken as approved at the grant of Development Consent and valid for the preliminary activities whereas the final Pollution Prevention Plan(s) as approved will apply to the main construction stage.

1.2.4 The final Pollution Prevention Plan(s) will be in general accordance with the principles established in this Outline Pollution Prevention Plan and will be agreed with the relevant authority prior to commencing the relevant construction stage of the onshore works (above MHWS) for the Proposed Development (i.e. any updates to the plan during construction would be approved by the relevant authority).

1.2.5 A Construction Drainage Strategy will be provided post-consent and included in the final On-CEMP. This will set out further measures to minimise surface water-runoff and subsequent pollution during construction of the onshore elements of the Proposed Development.

1.3 Methodology

Overview

1.3.1 The key roles and associated responsibilities with regard to this Outline Pollution Prevention Plan are set out below. The Construction (Design and Management) Regulations 2015 also identify the legal duties, responsibilities and obligations of all the major roles within the construction team.

Objectives

1.3.2 In respect of pollution prevention, the objectives of the Outline Pollution Prevention Plan are to ensure:

- prevention of pollution to land, air and water;
- compliance with current environmental legislation; and
- provision of a baseline for good practice with respect to pollution prevention, ensuring all reasonably practicable measures are implemented to avoid pollution.

Applicant

- 1.3.3 The Applicant will be responsible for the following.
- Ensuring that the Pollution Prevention Plan(s) is implemented effectively.
 - Giving necessary direction to contractors (for example, setting contractual obligations).
 - Reviewing, revising and refining the Pollution Prevention Plan(s) (where necessary) in conjunction with the Principal Contractor(s).

Principal Contractor(s)

- 1.3.4 The Principal Contractor(s) will be appointed by the Applicant and has the overall responsibility for the following.
- Updating and delivering the Pollution Prevention Plan(s) on behalf of the Applicant.
 - Ensuring all procedures in the Pollution Prevention Plan(s) are followed.
 - Ensuring all contractors are suitably qualified and experienced in implementing the measures within the Pollution Prevention Plan(s).
 - Maintaining records relevant to the Pollution Prevention Plan(s).

Contractors/Sub-Contractors

- 1.3.5 Contractors and sub-contractors will be required to understand their responsibilities and implement the measures within the Pollution Prevention Plan(s).

Training and Competence

- 1.3.6 All employees, contractors, subcontractors, suppliers and visitors to the site will be notified via a site induction of the pollution prevention control requirements.
- 1.3.7 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 and drip trays (or absorbent alternatives including booms, granules and matting) as part of the site induction.
- 1.3.8 Site security staff, the store's manager, supervisors, callout staff, the rapid response team and the Environmental Manager and Advisor will be trained in the use of emergency equipment and spill kits and will be fully briefed on the actions to be taken to deal with and report an environmental incident.
- 1.3.9 Toolbox talks will include details of the actions to be taken in the event of an environmental incident.

- 1.3.10 Environmental Site Notices, posters and advisory notices dealing with environmental incidents will be displayed in the main site office notice boards.
- 1.3.11 The Principal Contractor(s) 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.

Relevant Guidance

- 1.3.12 Construction works will be undertaken in accordance with good practice guidance which includes the following Environment Agency (EA) and Construction Industry Research and Information Association (CIRIA) guidance documents (prefixed with a C in the below list). Please note that whilst the EA Pollution Prevention Guidelines (PPGs) have been withdrawn they are still a useful source of reference to inform best practice for baseline pollution prevention):
- PPG1 General Guide to the Prevention of Pollution.
 - PPG2 Above Ground Storage Tanks.
 - PPG3 Use and design of oil separators in surface water drainage systems.
 - PPG4 Treatment and disposal of sewage where no foul sewer is available.
 - PPG5 Works and maintenance in or near water.
 - PPG6 Working at construction and demolition sites.
 - PPG7 Refuelling facilities.
 - PPG8 Safe storage and disposal of used oils.
 - PPG13 Vehicle washing and cleaning.
 - PPG18 Managing firewater and major spillages.
 - PPG20 Dewatering underground ducts and chambers.
 - PPG21 Pollution Incident Response Planning.
 - PPG22 Dealing with spills.
 - PPG26 Storage and handling of drums and Intermediate Bulk Containers (IBCs).
 - PPG27 Installation, decommissioning and removal of underground storage tanks.
 - The Environment Agency's approach to groundwater protection (Environment Agency, 2018).
 - C532 Control of Water Pollution from Construction Sites.
 - C648 Control of Water Pollution from Linear Construction Projects.
 - C648 Control of Water Pollution from Linear Construction Projects Site Guide.
 - C736 Containment Systems for the Prevention of Pollution.
 - C741 Environmental Good Practice on Site.
 - C753 The Sustainable Drainage System (SuDS) Manual.

Potential Pollution Sources, Pathways and Receptors

Assessment Methodology

- 1.3.13 Pollution may be defined as the introduction of a contaminant into air, land or water, resulting in an impact to the environment into which the substance is released.
- 1.3.14 Contaminants associated with construction of the onshore elements of the Proposed Development 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).
- 1.3.15 Pollution in this section is described in terms of a source-pathway-receptor approach:
- Source referring to the source of contamination.
 - Pathway for the contaminant to move/migrate to receptor(s).
 - Receptor (Target) that could be affected by the contaminant(s).

Pollution Sources

- 1.3.16 There are a number of potential sources of pollution from historical land use and the processes involved in the construction of the onshore elements that may cause harm to human health and/or pollution of the environment. These are as follows:
- fuel and chemical storage/refuelling areas;
 - disturbance of residual soil contamination from former on-site activities including a rifle range in the west (Unexploded Ordnance (UXO)), former lime kilns in the west and at the point of river crossing and infilled quarries together with anecdotal evidence of a livestock burial pit at the Converter Station location;
 - 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 soil), and haul routes;
 - run-off from tracks, bridges, and culverts crossings at watercourse crossings;
 - 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;
 - 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 compounds.

Pollution Pathways

- 1.3.17 Movement of pollutants within the environment may be as a result of direct release to the atmosphere, ground or surface watercourse or via permeable ground, groundwater flow, surface water drainage systems or man-made conduits for utilities.

Pollution Receptors

- 1.3.18 The locations of sensitive receptors where impacts could occur are identified in Volume 2, Chapter 4: Geology, Hydrogeology and Ground Conditions of the ES (document reference 6.2.4); Volume 2, Appendix 4.1: Desk Top Study Preliminary Risk Assessment and Site Reconnaissance of the ES (document reference 6.2.4.1); and Volume 2, Appendix 4.2: Private Water Supply Desk Based Assessment of the ES (document reference 6.2.4.2). There are a number of potential pollution receptors, which are as follows.

- Surface waters including the River Torridge.
- Groundwater in superficial deposits and bedrock (Secondary A Aquifers).
- Construction Workers and adjacent site users.
- Geological designations i.e. Mermaids Pool to Rowden Gut Site of Special Scientific Interest (SSSI) and archaeological features.
- Ecological designations including:
 - Kynoch's Foreshore Local Nature Reserve;
 - Abbotsham Cliff County Wildlife Site (CWS);
 - Torridge Estuary CWS;
 - Lodge Plantation Unconfirmed Wildlife Site;
 - Haddacott Moor CWS;
 - Hallsannery CWS; and
 - Tennacott Woods CWS.
- Private water supplies, as detailed within Volume 2, Appendix 4.2: Private Water Supply Desk Based Assessment of the ES (document reference 6.2.4.2).

1.4 Pollution Prevention and Mitigation

General Pollution Prevention Measures

- 1.4.1 The following general pollution prevention measures will be applied during construction of the onshore elements of the Proposed Development in accordance with the guidance referred to above.

Use of Hazardous Substances including fuels and chemicals

- 1.4.2 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 these pollutants entering local watercourses or drainage systems. Bunded areas will have impermeable bases to limit the potential for migration of pollutants into groundwater should any leakage/spillage occur. Bunds used to store fuel, oil etc. within single fixed tanks, IBCs or mobile bowzers will have a capacity of 110% of the container's storage capacity.
- 1.4.3 The following measures will be implemented on site for the use and storage of potentially polluting materials.
- Keeping the use of substances, products and materials which have the potential to pollute to the minimum that is necessary for their operations.
 - Ensuring the servicing of plant and equipment is conducted on hardstanding, remote from any watercourse/drainage system.
 - All oil and diesel storage facilities, including mobile fuel bowzers, would be at least 30 m from any watercourse and at least 50 m 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 and handling areas.
 - Spill kits and drip trays would be provided for all plant/equipment maintenance 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 pollutant release.
 - Storage facilities would be kept secure to prevent acts of vandalism that could result in leaks or spills.
 - All containers of any size would be correctly labelled indicating their contents and any Control of Substances Hazardous to Health (COSHH) Regulations 2002 (as amended) hazard warning signs.
 - Any refuelling of plant will be undertaken within designated areas where spillages can be easily contained.
 - Ensuring refuelling operations will only be undertaken by fully trained operatives.
- 1.4.4 All fuel and chemical storage will comply with the Control of Pollution (Oil Storage) (England) Regulations 2001 and COSHH (as amended), as applicable.
- 1.4.5 The measures that will be implemented on site for the prevention of spills will include but are not limited to the following.
- Fuel tanks and mobile bowzers and IBCs would have a secondary containment, e.g. a bund or drip tray. All tanks and mobile bowzers would be in a sealed impervious bund.
 - Fill (or draw off pipes) would not extend beyond the bund wall (or must be sealed) and should have a suitable lockable cap with chain.

- Any tap or valve permanently attached to a tank or bowser through which fuel can discharge, would be fitted with a lock.
 - All valves, pumps, and trigger guns would be secured when not in use.
- 1.4.6 Suitable precautions would be taken to prevent spillages from equipment containing small quantities of polluting 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.
- 1.4.7 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. 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;
 - the pipework would pass over and not through bund walls;
 - tanks and bunds would be protected from vehicle impact damage;
 - tanks would be labelled with contents and capacity information; and
 - COSHH assessment and task briefings should be undertaken and provided to site workers where there are requirements with respect to COSHH as part of the works.
- 1.4.8 In accordance with the Control of Pollution (Oil Storage) (England) Regulations 2001 where oil drums are over 200 L capacity, the following would be implemented.
- 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 (except for petrol and flammable liquids up to 1,000 L capacity which would be stored in accordance with Health and Safety Executive (HSE) guidance (HSE, 2015)).
- 1.4.9 Additionally, drums would be labelled and positioned such that leaks cannot overshoot the bund or drip tray wall; and all containers should be stored securely when the site is unattended.
- 1.4.10 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 are trained in these procedures and the use of spill kits;
 - tank capacities and current contents levels are checked prior to accepting a delivery to ensure that they are not overfilled;

- 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.

1.4.11 All flammable and hazardous substances would be kept in a secure bunded cupboard, cabinet or tank constructed of materials which are chemically resistant to its contents and suitably ventilated.

Plant/Vehicle Washing

1.4.12 The use of vehicles and plant poses similar risks to those posed by storage of hazardous liquids. Fuel and oil may leak from vehicles and plant which may enter watercourses or drainage systems, as well as contaminating the ground. The following measures would be implemented in line with PG13 Vehicle washing and cleaning to reduce this risk.

- Vehicles and plant provided for use on the site would be in good working order to ensure optimum fuel efficiency and are free from leaks. Plant with integral bunding and/or drip trays would be specified.
- Sufficient spill kits would be carried on all vehicles.
- Any hired vehicles and plant would be checked upon delivery and not accepted if they are not in good working order for example, leaking, excessive fumes, excessive noise and/or smoke.
- Vehicles and plant would be regularly maintained to ensure that they are working at optimum efficiency and are promptly repaired when not in good working order.
- 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.
- Vehicles and plant would not be overfilled with fuel.
- Plant containing oils would be inspected daily and maintained to both prevent and identify leaks.
- Wheel washing and wash bays can be used to prevent mud being carried onto public roads. Washing activities should be undertaken in a designated area at least 10 m from the nearest surface watercourse.
- A competent person should be made responsible for the maintenance and vehicle washing. Recycling and reuse of water should be undertaken where appropriate using relevant measures, e.g. impermeable sumps to collect runoff.
- A visual check of vehicles leaving site would be undertaken to check that the vehicles are not carrying any potentially polluting materials.

1.4.13 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.

Dust Generation and Silt Run-off

- 1.4.14 The following measures will be implemented to minimise the risk of pollution through the disturbance of silts and sediments:
- Depending on the duration that stockpiles will be present and their size - cover, seed, fence or water to prevent wind whipping.
 - Stockpiles would be within designated stockpile areas only, which would be located a minimum of 10 m from any open watercourse features, where practicable.
 - Any topsoil bunds will be seeded or sealed as necessary to prevent dust and run-off and will be inspected for invasive species colonisation.
 - Disturbance to areas close to watercourses will be reduced to the minimum necessary for the work.
 - Excavated material (soil and arisings) retained on site would be stockpiled within the confines of site barriers/fencing, at a safe distance from and prevented from entering any ditch, drainage system or watercourse.
 - Use of sediment fences along watercourses when working in close proximity to prevent sediment run-off being washed into watercourses.
 - Use of silt curtains within watercourses where required.
 - Where dewatering is required during the excavations, settling tanks would be used to allow for silt and other materials to settle prior to discharge.
 - Covers will be used by lorries transporting materials to/from site to prevent releases of dust/sediment to watercourses or drains.
 - 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.
- 1.4.15 Further detailed construction dust control measures are provided within the Outline Dust Management Plan which forms Appendix C of the Outline On-CEMP (document reference 7.7).

Construction Workers

- 1.4.16 Construction Workers will follow good site and hygiene practices in line with the On-CEMP(s). Further information is provided in the Outline On-CEMP (document reference 7.7).

High Risk Activities

- 1.4.17 Further pollution prevention measures in relation to high risk activities are detailed below.

Disturbance of Contaminated Soils/UXO

- 1.4.18 The disturbance of potentially contaminated soils will be addressed through implementation of the Discovery Strategy to be included in the On-CEMP(s).

- 1.4.19 The risk presented by possible UXO associated with the former rifle range will be mitigated through measures presented in the On-CEMP(s) and will include a UXO briefing of site personnel to be included within Toolbox Talks.

Release of drilling fluids

- 1.4.20 The management of drilling fluids from HDD is addressed within the Outline Bentonite Breakout Plan (document reference 7.20).

Excavation Dewatering

- 1.4.21 Water management for the construction scheme shall follow good practice guidance in line with CIRIA documents (CIRIA, 2006a and 2006b).
- 1.4.22 Excavation dewatering works will be controlled to prevent pollution of watercourses and drainage systems.
- 1.4.23 Water use will be managed as sustainably as possible with water reuse a priority.
- 1.4.24 The discharge of wastewater generated by dewatering may require a permit from the EA, depending on a number of factors, including, but not limited to, where the wastewater is discharged to (surface water or ground water), the potential for contamination, the volume of wastewater discharged and the duration of the activity. If waste water is to be discharged to surface water, it may be possible to take advantage of Regulatory Position Statement - Temporary dewatering from excavations to surface water: RPS 261.
- 1.4.25 In the event that development of the construction site drainage design indicates the possible requirement for a permit, pre-application advice would be sought from the EA where appropriate.
- 1.4.26 The discharge of wastewater must comply with the conditions of any applicable discharge permit from the EA, or the conditions of any exemption or Regulatory Position Statement, as appropriate.
- 1.4.27 Should the pumped water contain silt (suspended solids), prior to discharge to surface water, measures shall be taken to remove silt such as:
- Infiltration trenches filled with clean stone to remove silt;
 - Vegetation margins adjacent to watercourses;
 - SuDS construction; or
 - Silt traps / treatment systems such as siltbuster etc.
- 1.4.28 Should it be required, further treatment of very fine silts (e.g. flocculation) shall be carried out to minimise impacts to the soakaway discharge and prevent clogging.
- 1.4.29 The mitigation measures outlined above will also be applicable where wastewater from dewatering is discharged to ground. The location of discharge will be checked regularly. Where the ground is becoming saturated and water is no longer infiltrating, the discharge location will be moved to an alternate location. Water shall be pumped at a rate that allows the water to be quickly absorbed into the ground.
- 1.4.30 All dewatering activities shall be overseen by trained personnel and carefully managed to prevent localised flooding or pollution of surface and groundwater from silt and other contaminants.

Concrete Washout

- 1.4.31 Concrete washout water is a slurry containing toxic metals. It is also caustic and corrosive, having a pH near 12 (in comparison, drain cleaner has a pH of 13.5) and for this reason it is highly polluting. The safe pH ranges for aquatic life habitats are 6.5 - 9 for freshwater and 6.5 - 8.5 for saltwater.
- 1.4.32 Designated areas will be provided for washing out concrete delivery lorries and concrete pumps. These will consist of a small skip or suitably constructed containment pit lined with an impermeable membrane. Concrete washout water will be managed in line with the EA position statement (Environment Agency, 2011).
- 1.4.33 After concrete is poured on site, the chutes of ready mixed concrete trucks and hoppers of concrete pump trucks must be washed out to remove the remaining concrete before it hardens. Equipment such as wheelbarrows and hand tools may also need to be washed down.
- 1.4.34 When the wash water in a construction site concrete washout container has been removed or allowed to evaporate, the hardened concrete that remains can be crushed and reused as a construction material or delivered to a recycler with the appropriate Duty of Care documentation.

1.5 Pollution Prevention Monitoring and Controls

Monitoring

- 1.5.1 On-site meetings/inspections will be carried out as necessary to confirm the appropriate use of mitigation measures identified within the Pollution Prevention Plan(s). These meetings/inspections will highlight any further issues/measures which may be relevant either prior to commencement or during the works.
- 1.5.2 Monitoring will be carried out to ensure compliance with the Pollution Prevention Plan(s) and to ensure that all mitigation measures put in place are maintained and continue to be effective.
- 1.5.3 Regular checks of plant and equipment will be undertaken by the Principal Contractor(s) 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.

Records

- 1.5.4 Records will be kept for all initial, final, and routine monitoring inspections. These records will be stored in an agreed location on site and be available for internal and external auditing as required.
- 1.5.5 Record sheets will detail the date, location of inspection, frequency, findings, appropriate person/s notified of incidents 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 retained.

1.6 Emergency Incident Response

- 1.6.1 All incidents associated with the construction of the onshore elements of the Proposed Development, including environmental incidents and non-conformance with the On-CEMP(s), would be reported and investigated using the procedures that will be detailed within the relevant final management plans.
- 1.6.2 The following procedure would be followed in the event of an incident and would be detailed further in the relevant management plan.
1. Works would stop within the vicinity of the incident.
 2. The Health, Safety, Security & Environment Manager would be contacted.
 3. 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; and
 - if the incident could not be controlled by the staff on Site, emergency assistance would be sought.
 4. The appropriate enforcing authority would be contacted and informed, including:
 - EA for incidents relating to or affecting rivers, groundwater, and major emissions to atmosphere;
 - The local sewerage undertaker for incidents affecting sewers;
 - The Local Authority Environmental Health Department for incidents that could affect the public; and
 - The Food Standards Agency for incidents that have the potential to affect food through deposition on crops or land used for grazing livestock.
 5. The Project would instigate an investigation into the occurrence of the incident.
 6. The findings would be sent to the appropriate enforcing authority where necessary.
 7. 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 On-CEMP(s) and Health and Safety File (requirement of the Construction (Design and Management) Regulations 2015) would be updated (and any other plans as appropriate) and all workers would be notified.

1.7 References

- CIRIA (2001) Control of Water Pollution from Construction Sites (C532)
- CIRIA (2006a) Control of Water Pollution from Linear Construction Projects (C648)
- CIRIA (2006b) Control of Water Pollution from Linear Construction Projects: Site Guide (C649)
- CIRIA (2014) Containment systems for the prevention of pollution (C736F)
- CIRIA (2015a) Environmental Good Practice on Site (C741)

CIRIA (2015b) The Suitable Drainage System (SuDS) Manual (C753)

Environment Agency (2018) The Environment Agency's approach to groundwater protection, Version 1.2. Available at:
https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/692989/Environment-Agency-approach-to-groundwater-protection.pdf#:~:text=Where%20development%20does%20proceed%20and%20where%20any%20associated (Accessed: September 2024).

Environment Agency (2011) Regulatory Position Statement 107 (RP 107) Managing concrete wash waters on construction sites: good practice and temporary discharge to ground or surface waters.
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<https://www.gov.uk/government/publications/temporary-dewatering-from-excavations-to-surface-water>

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<https://webarchive.nationalarchives.gov.uk/ukgwa/20140328090931/http://www.environment-agency.gov.uk/business/topics/pollution/39083.aspx> (Accessed: 01/02/2024)

Northern Ireland Environment Agency, Scottish Environment Protection Agency and Environment Agency (2013) Pollution Prevention Guidelines: PPG1 Understanding Your Environmental Responsibilities – Good Environmental Practices.

Northern Ireland Environment Agency, Scottish Environment Protection Agency and Environment Agency (2011a) Pollution Prevention Guidelines: PPG22 Dealing with spills.

Northern Ireland Environment Agency, Scottish Environment Protection Agency and Environment Agency (2011b) Pollution Prevention Guidelines: PPG2 Above ground oil storage tanks.

Northern Ireland Environment Agency, Scottish Environment Protection Agency and Environment Agency (2011c) Pollution Prevention Guidelines: PPG26 Drums and intermediate bulk containers.

Northern Ireland Environment Agency, Scottish Environment Protection Agency and Environment Agency (2010) Pollution Prevention Guidelines: PPG6 Working at construction and demolition sites.

Northern Ireland Environment Agency, Scottish Environment Protection Agency and Environment Agency (2009) Pollution Prevention Guidelines: PPG21 Incident Response Planning.

Northern Ireland Environment Agency, Scottish Environment Protection Agency and Environment Agency (2007a) Pollution Prevention Guidelines: PPG7 The safe operation of refuelling facilities.

Environment and Heritage Service, Scottish Environment Protection Agency and Environment Agency (2007b) Pollution Prevention Guidelines: PPG13 Vehicle washing and cleaning.

Environment and Heritage Service, Scottish Environment Protection Agency and Environment Agency (2007c) Pollution Prevention Guidelines: PPG5 Works and maintenance in or near water.

Environment and Heritage Service, Scottish Environment Protection Agency and Environment Agency (2006a) Pollution Prevention Guidelines: PPG3 Use and design of oil separators in surface water drainage systems.

Environment and Heritage Service, Scottish Environment Protection Agency and Environment Agency (2006b) Pollution Prevention Guidelines: PPG4 Treatment and disposal of sewage where no foul sewer is available.

Environment and Heritage Service, Scottish Environment Protection Agency and Environment Agency (2004) Pollution Prevention Guidelines: PPG8 Safe Storage and disposal of used oils.

Environment and Heritage Service, Scottish Environment Protection Agency and Environment Agency Pollution Prevention Guidelines: PPG18 Managing Fire Water and Major Spillages.

Environment and Heritage Service, Scottish Environment Protection Agency and Environment Agency Pollution Prevention Guidelines: PPG20 Dewatering of Underground Ducts and Chambers.

Environment and Heritage Service, Scottish Environment Protection Agency and Environment Agency Pollution Prevention Guidelines: PPG27 Installation, Decommissioning and Removal of Underground Storage Tanks.