Pollution Prevention Plan
for the
Arnish Road Upgrade Development

Date: 03/04/2024

Document Number: 110_REP_05_01

Document Control

	Name	Title	Signature	Date
Author	Sophie Fallon	Senior Consultant	S. Fallon	30/01/2024
Reviewer	Fiona Henderson	Director	F.Henderson	03/04/2024
Authoriser	Fiona Henderson	Director	F.Henderson	03/04/2024

Effective Date:	**03/04/2024**

Revision No:	Signature	Comments	Date
1	S. Fallon	For Issue	03/04/2024

Contents

1 Introduction

This Pollution Prevention Plan (PPP) has been produced to support the Planning Application for the Arnish Road Upgrade Development (ARUD) on behalf of Stornoway Port Authority (SPA).

The purpose of this document is to provide all relevant details regarding pollution prevention and management for the site during the construction phase, in line with Supporting Guidance WAT-SG-75; Sector Specific Guidance: Construction Sites (Scottish Environment Protection Agency (SEPA), 2018). It outlines the potential pollution sources, pathways, and receptors within the construction phase of the development, and details the proposed mitigation to manage the surface water discharge from the site. It also outlines the rapid response scenarios and subsequent management actions, and the management framework to ensure good working practises, to reduce the risk of a pollution event occurring.

As discussed in Section 1.1.2, the construction contract is still to be awarded. As such the detail provided below is based on input from the client's engineers taking account of relevant guidance. The construction contractor once awarded contract will produce detailed risk assessments and method statements which will provide additional detail. If the proposals give rise to a significant change to those laid out here, or the associated mitigation then this document will be updated accordingly.

1.1 Project Background

The Arnish Road is located on the western coastline of Cala Ghlumaig (Glumaig Harbour), on the Isle of Lewis, and links Arnish Point with the A859. Arnish Road is used as the sole road access for traffic and deliveries to the Stornoway Deep Water Port (SDWP), the Arnish Power Station, and the businesses associated with the Arnish Point Industrial Estate (APIE). This single track, asphalt road does not meet adoptable standard, as the road has insufficient passing places and includes blind corners and crests. Adding to the risks of poor visibility, the road is used by various vehicles including large freight lorries accessing the SDWP and APIE. Consequently, the upgrade of the road to allow for two-way traffic along the entire length is proposed to improve traffic flow and road safety for all users.

The ARUD comprises of a two-way, asphalt road built to appropriate adoptable road design standards. This will incorporate a 6.6m wide single carriageway with a hard verge either side. The carriageway will be constructed of compacted rockfill placed on glacial till or rock and surfaced with asphalt. Underground services will be located within the hard verge, which will be left unsurfaced. The verges have been widened to 2.7m and 3.3m to accommodate future cabling associated with the Western Isles Interconnector and potential electrical generation projects. The road junction with the A859 will be enlarged to improve visibility. Four water crossings will also be replaced to convey existing watercourses under the widened road.

1.1.1 Legislative Background

Under the Town and Country Planning (Scotland) Act 1997, any type of new development, i.e., carrying out of building, engineering, mining, or other operations in, on, over or under land, or the making of any material change in the use of any buildings or other land will require Planning Permission from the local authority, in this case Comhairle nan Eilean Siar (CnES). A formal Screening Opinion was requested from CnES under Regulation 8(1) of

The Town and Country Planning (Environmental Impact Assessment) (Scotland) Regulations 2017. It was determined that an Environmental Impact Assessment (EIA) was not required.

Discharge of surface water from the ARUD works will be of a scale that falls under a Construction Run-off Simple Licence according to The Water Environment (Controlled Activities) (Scotland) Regulations 2011 (as amended), known thereafter as Controlled Activities Regulations (CAR). Additionally, the four culverts which currently convey watercourses under the existing Arnish Road will be replaced under the new road with a suitable strength for vehicle loading. These culverts will require an Engineering Works Simple Licence under CAR and the detailed design of these culverts will be developed in consultation with SEPA. These CAR licences will be sought from SEPA as the regulating authority prior to work starting on site.

1.1.2 Construction Programme

The construction programme is not yet finalised; however, it is anticipated that the work will be split into two phases and commence in Summer 2024. Phases 1 & 2 (A859 junction improvements, and first 400m from A859 junction up to the SDWP Access Road) is to go out to tender in Spring 2024, start on site in Summer/Autumn 2024 with an expected duration of 1 year. Phase 3 (From SDWP Access Road to APIE) is to go out to tender in 2025, with an expected duration of 6 months.

1.2 Location

The ARUD proposal extends from the A859 junction between the Creed Road Bridge and Macaulay Farm at NB 40339 32388, terminating at the APIE at approximately NB 42612 30340. See Maciver Consultancy Services' Horizontal Alignment Drawings 23/129/11 to 15 for road design proposals. The route of the new road follows closely the route of the existing road, revised as necessary to comply with the relevant adoptable standard for visibility as set out in the Design Manual for Roads and Bridges (DMRB).

2 Project Description

2.1 Project Components

Construction activities for the ARUD comprise:

- Site establishment, including preparation of the site compound;
- Ground stripping and works corridor establishment;
- Removal of sections of the existing road;
- Rock blasting;
- Road construction and profiling;
- Verge establishment and drainage works;
- Replacement of four culverts;
- Peat reinstatement and restoration; and
- Road surfacing and furnishings.

The Maciver Consultancy Services' Horizontal Alignment Drawings 23/129/11 to 15 show the detailed road layout and the location of the proposed site compound.

As noted above, four culverts will require replacement as part of the ARUD; these will be covered under a separate CAR licence application. Any specific mitigation associated with the

culvert replacement engineering works will be developed through the CAR licensing process and added to the Schedule of Mitigation for the ARUD once developed and approved by SEPA. Hence, the culvert engineering works will not be considered under the PPP.

2.2 Construction Activities

It is expected that work will take in the region of eighteen months to complete, which may be split into three phases; multiple tasks may be ongoing in parallel during the phases. For the avoidance of doubt this PPP covers activities to be undertaken in all three phases.

2.2.1 Site Compound

One of the early construction activities will be the construction of an area of hardstanding to be utilised as a site compound. This is likely to be located on an area to the northeast of the existing road approximately 1.2km from the A859 junction. This will be used for material storage, welfare facilities and site parking. This will be cleared of vegetation and soils where required, dressed in sub-base material to form a hard but permeable surface, and fenced to provide a secure compound.

The site compound will be used for the site office, welfare facilities, parking for site staff and visitors, with plant and materials storage during the construction of the ARUD. The main compound will require soil stripping over an area of 4,700m^2 and subsequent compacted rock-fill surfacing.

Cut-off ditches will be dug around the perimeter of the compound area to minimise run-off water passing over or flowing away from the compound. The compound will have a designated chemical store and fuel storage area. Foul drainage from the welfare unit will be contained in internal tanks for regular collection and offsite treatment and disposal.

2.2.2 Ground Stripping and Works Corridor Establishment

Works to establish the road corridor will include:

- Stripping of vegetation to allow access for plant and machinery;
- Removal soil and peat to rock level utilising heavy plant to strip turves and peat in sections;
- Rock blasting to develop the road corridor where required; and
- Temporary surface dressing to facilitate construction access.

Clearance of surface material is required for the road construction and ancillary works. This will include the removal of vegetation, soil, peat, and rocks using heavy plant. Any soil will be stockpiled for re-use on site and peat will be managed in accordance with the Arnish Road Upgrade Peat Management Plan (PMP) (Fluid Consulting, 2023) and mitigations detailed in the Environmental Supporting Document (Affric, 2024).

To allow safe, temporary access for the road construction traffic, a temporary haul road may be established alongside the existing road, where required. This allows for the road footprint as well as sufficient space for traffic management measures and a working area to allow access for construction traffic. This working area will enable the road to be constructed in phases, maintaining traffic flow as far as practicable for the duration of the project utilising traffic management measures. The temporary haul route will be floating road construction, in line with the good practise guidance 'Floating Roads on Peat' (Forestry Civil Engineering & Scottish

Natural Heritage, 2010), and/or cut and fill excavation depending on ground conditions along the route. Site stripping will be minimised as far as practicable, while still allowing safe construction access. Temporary areas no longer required post-construction, will be reinstated once the development is complete.

2.2.3 Removal of the Existing Road

Where the proposed route deviates from the existing Arnish Road, the existing road will be removed, and the materials re-used within the new road construction, where possible. Trial pits are currently being undertaken to determine suitability of the road construction material for re-use.

2.2.4 Rock Blasting

Rock blasting will be required where the topography dictates to achieve a satisfactory gradient and/or the required width of road. The blasted rock will be processed on site to a suitable size and re-used within the road construction.

2.2.5 Road Construction and Profiling

Soil/peat will be removed prior to placement of rockfill and re-used to reinstate temporarily disturbed ground as per the Peat Management Plan (Fluid 2023). The road profile will be balanced with cut and fill, where required, within design standards, compacting aggregate in layers before surfacing in asphalt. The road construction tasks will require heavy plant such as excavators, dumpers and road-rollers to place, layer and compact the aggregate, binding and surfacing materials.

2.2.6 Verge Establishment and Drainage Works

The verges either side of the road will comprise free-draining materials to allow surface water to percolate. Where the level of the road is lower than the adjoining land, ditches will be provided on either side of the verges. These will direct surface water to low points along the route, routing to existing watercourses via Sustainable Urban Drainage Systems (SuDS) features in the form of filter strips and swales. Where the road level is higher than the surrounding land, the embankments on either side of the road will be constructed to a gradient of 1:1.5 to direct surface water away from the road. Where the road routes through the APIE, filter drains will be installed either side of the road to convey all road runoff to the industrial estate drainage system (which currently discharges to sea).

2.2.7 Replacement Of Four Culverts

There are four culverts under the existing road. These will be extended under the new road with suitable strength for vehicle loading. The applicant has consulted SEPA on the licensing requirement for these culverts; SEPA has advised that a Simple Licence for Engineering Works under CAR will be required. The detailed design of these culverts will be developed in consultation with SEPA to take account of the relevant provisions of CAR.

2.2.8 Peat Reinstatement and Restoration

Peat will be re-used to reinstate the existing road footprint at these locations to match existing adjacent habitats. Peat reinstatement throughout the construction footprint is described in more detail within the ARUD PMP (Fluid, 2023).

2.2.9 Road Surfacing and Furnishings

The surfacing works will take place on one lane at a time to allow for traffic flow. The completed carriageway will be dressed in granular material and coated with asphalt (bitumen).

Some minor alterations may be required to existing fencing to align with the new road layout, and new signage will be installed as required to comply with road design guidance.

3 Pollution Risk Considerations

3.1 The Source, Pathway, Receptor Model: Pollution Linkages

A construction site and activities taking place therein will only cause harm to the environment if there is a source, a pathway, and a receptor linkage, as described in GPP1 (NIEA, SEPA, & Environment Agency, 2020).

For the ARUD, consideration will be given to potential pollutant sources and construction activities which may provide a pollution source, pathways within the site, and receptors which have the potential to be affected by a pollution event.

3.2 Potential Pollution Receptors

3.2.1 Freshwater Features

At present surface water discharges naturally into the watercourses already present in the vicinity of the development, flowing downhill towards the sea. Freshwater receptors for the ARUD include:

- Poll a'Choire Lochan and Loch Arnish, both of which are adjacent to the Red Line Boundary (RLB);
- Two named watercourses, the Allt Poll a'Choire and the River Creed; and
- A number of minor watercourses situated within and proximal to the RLB.

The River Creed is currently classified as having 'High' water quality SEPA (2021) and the receiving coastal water having 'Good' water quality.

The River Creed system is fished for salmon, brown trout and sea trout being managed by Stornoway Angling Association. Although the majority of fishing beats are upstream of the construction site, pollution in the River Creed or its tributaries has the potential to impact on salmonids that may be present, or their habitat. Otter are known to utilise the watercourses in the area.

There are drainage channels along some sections of the existing Arnish Road; at present, surface water from the road flows into these channels or the surrounding land, and then naturally drains to the watercourses mentioned above. All watercourses ultimately drain into the marine environment at Glumaig Bay.

3.2.2 Groundwater

Few areas of marshy grassland were recorded in the Preliminary Ecological Appraisal (PEA) undertaken for the ARUD and recognised as being moderately dependent on groundwater, although these are likely to be present due to modified drainage systems and as such are considered to some degree, as artificial. It is noted that these habitats are likely to be typical

species-poor examples of habitats which are widespread and common throughout western Scotland.

3.2.3 Private Water Supplies

There are no known private water supplies in the vicinity of the proposed development.

3.3 Potential Pollutant Sources

Potential sources of pollutants are discussed in detail below, and mitigation measures for all potential pollutant sources on the development are detailed in Section 4: Pollution Management Systems.

3.3.1 Silt

Silt is mobilised from a source by surface water, causing it to runoff as silty water. High levels of silt in watercourses can smother sensitive species and habitats including freshwater pearl mussels and salmon breeding areas (redds) as well as impacting on important invertebrate fauna.

Sources of silt during the construction period are identified as:

- Stripped ground during earth works;
  - In areas cleared for road construction;
  - At the site compound;
- Runoff from peat/soil temporary storage areas;
- Runoff from temporary access tracks;
- Works to extend culverts;
- Reinstated soil/peat areas, until vegetation recovers;
- Rock blasting and processing areas;
- Construction aggregate storage areas; and
- Dust from construction traffic.

Soil and peat will be stripped to make way for the site compound, temporary construction haul routes, and the new road footprint. Soil stripping will give rise to bare ground and exposed soils, exposed ground will be minimised in extent and duration as far as possible, it is still a source of silts.

The ARUD is situated in an area with some peat coverage. Peat coverage is not continuous on the site and is in plateaus, hollows and watercourse valleys between rocky outcrops and heathery mounds. Peat will be excavated and will require careful storage and management to ensure it is suitable for reuse, the specifics of which are covered in the PMP. The PMP sets out guiding principles to ensure peat disturbance is minimised, and the areas of highest environmental sensitivity will be clearly marked on site.

The movement and placement of unconsolidated soils and peat materials into temporary storage or final position will also provide a source of silt, as will the reinstated areas of peat diggings until native vegetation recolonises the exposed peat.

There is always a risk from runoff from temporary roads with unsealed surfaces particularly when there are a lot of heavy construction traffic movements which can be exacerbated during periods of wet weather. Appropriate mitigation is required to ensure that this runoff does not enter existing watercourses untreated.

Bedrock will be blasted from the hillside and utilised within the road construction to achieve cut/fill balance. The rock will primarily be split into large sizes for use as rock fill, however the blasting process will give rise to a portion of small particulates which can become a source of dust and silt.

Blasted rock is likely to require further processing to be suitable for reuse. Fine material from crushing operations can contaminate surface water which can run into watercourses.

Works near watercourses such as culvert extensions/replacements are particularly high risk as they are by their very nature in or adjacent to the water environment. As discussed in Section 2.2.7 these engineering works will be require a separate Simple Licence and mitigation will be required in line with any granted Licence.

Dust may also be considered as a source of silt due to vehicle and plant movements on site, and to and from the site on public roads.

3.3.2 Hazardous Materials

Hazardous materials are likely to be used and stored on site. The main source are fuels and oils from plant and machinery working on the ARUD. Some other hazardous materials which may be present on site include explosives, hazardous waste such as oily rags or used storage containers, and cleaning products.

If hazardous materials are released to the water environment this can result in direct mass mortalities of fish and other species over large stretches of watercourses. The materials can persist resulting in long-term damage to ecosystems.

3.3.3 Foul Water

Welfare facilities and site office accommodation units will generate foul water from site compounds over the duration of the construction work. Inappropriate discharge of foul water on to land or into watercourse can lead to environmental damage from the growth of sewage fungus that can smoother habitats. A reduction in the levels of oxygen in the water and toxic effects from chemicals in the foul water can cause mass mortalities.

Foul water will be collected onsite for disposal offsite by a licenced waste disposal operator, and therefore no further management considerations are required.

3.4 Potential Pollutant Pathways

Potential pollutant pathways are identified as routes that potential pollutants could take to reach the water environment, and possible parts of the water environment that the pollutants could reach where no mitigation is provided, fails, or in event of an accident.

On the ARUD these could be identified as three pathways: flow through the soil into groundwater i.e., percolation, direct release into a watercourse, or overland flow.

3.4.1 Percolation Into Groundwater

Pollutants can percolate down into the soil and reach groundwater. Hazardous materials could be considered as a potential pollutant utilising this pathway for example in the case of an oil or fuel spill as this would percolate through the soil pathway potentially reaching groundwater. Groundwater may be connected to surface water pathways in some locations on the ARUP site, and therefore may transfer pollutants to surface water pathways or receptors.

3.4.2 Direct Discharge into a Waterbody

A pollutant might enter a waterbody directly in the form of a spill directly into a watercourse or waterbody. Hazardous materials may utilise this pathway; an example of this would be if a hydraulic hose burst on an excavator working directly over the Allt Poll a'Choire watercourse.

3.4.3 Overland Flow

Pollutants can flow over land to water courses under gravity. The effectiveness of the pathway will be determined by several factors:

- The topography determining the direction pollutants will move;
- The gradient of the land – steeper slopes providing a faster pathway;
- The permeability of the ground – impermeable surfaces allow pollutants to flow over them easily, whereas permeable grounds may facilitate a degree of percolation;
- Vegetation – the vegetation can hold up the movement of pollutants across land, slowing their spread; and
- Surface water presence – surface water run-off flows overland, hence during periods of wet weather, surface waters can aid the transfer of pollutants by this pathway. Surface water is of particular concern where silts are present as it can form 'silty water run-off'. However, it can also expedite the transport of other pollutants.

This pathway considers routes primarily associated with gravity; the site is being constructed within a hillside containing several freshwater habitats.

Overland flow of a pollutant would consist of an oil or fuel spill flowing over land without being conveyed in surface water runoff, such as a fuel or oil spill flowing down a hillside surface under gravity.

Surface run-off within the site may lead to mobilisation of pollutants, which may be miscible (i.e., mixed into the water as a solute in solution) or immiscible, where a substance such as oil floats on the water surface. An example of this source – pathway route would be if an item of plant developed an oil leak which dripped onto the ground surface in wet conditions, and the surface run-off carried the oily water away from the source.

Overland flow from constructed areas without vegetation cover could also lead to mobilisation of pollutants such as silt within the site, particularly on areas with steep slopes as this could result in faster runoff with reduced chance of interception. This pathway could be surface runoff from material storage areas, from the site compound, the road footprint or temporary haul route. Weather conditions can have a significant influence on the risk of silt run-off and is exacerbated by earthworks or plant movements undertaken in wet weather.

4 Pollution Management Systems

The best practise management process for dealing with pollution is the pollution control hierarchy, as detailed in the in the Guidance for Pollution Prevention 22 (GPP22) Dealing with Spills (NIEA, SPEA & Natural Resources Wales, 2018b).

The hierarchy has five steps as follows:

1. Contain at source;
2. Contain close to source;
3. Contain on the surface;

4. Contain in the drainage system; then
5. Contain on/in the watercourse.

Contain at source (1), is associated with the primary containment, for example by ensuring that containers, tanks, and pipework are fit for purpose, and inspected regularly.

Temporary bunds, drip trays or plant nappies may be utilised on plant equipment, where potential risks have been identified to contain spills close to source (2). In addition, if a spill were to occur outwith a bund, spill booms can be utilised to surround a spill and prevent it spreading from the source.

If it has not been possible to contain a spill close to source, steps will be taken to prevent it entering a watercourse or drain (3) for example using booms near the watercourse.

At later stages of the construction there may be drains which could be utilised to contain pollutants (4) or built into the scheme design as part of the temporary construction infrastructure to manage surface water. An example of this is a local containment system around the site compound, to ensure run-off from surrounding areas does not enter the compound where there is potential for contamination to occur. These cut-off ditches provide a suitable location for spill management measures to be installed, i.e., oil booms to remove oils from the surface of the water, or barriers to allow miscible liquors to be contained so that they can be pumped into containers for suitable offsite management.

The worst-case scenario is that a potential pollutant reaches a watercourse or the sea. If the substance floats on water e.g., oil, then booms can be utilised to contain the spill on the watercourse (5) to allow it to be recovered.

Early intervention is required to allow the early steps of the pollution control hierarchy to be utilised. As most risks will arise as a direct result of works being undertaken, there should be someone present, hence all staff working on the project will be trained to a sufficient level and know what to do in the event of a spill. It is noted that there could be the requirement for specialised spill contractors should a pollution event be of such a magnitude that the contractor can't deal with it.

Areas where potential pollutants are stored will be under a regular inspection regime, to ensure that any problems are identified promptly to allow action to be taken.

Pollution prevention measures have been developed to minimise the risk of an environmental incident occurring during the construction of the ARUD, and provide effective management steps in the event of a spill. These measures combine both the current UK best practise and guidance from the following documents:

- Construction Environmental Management Process for Large Scale Projects (Highland Council, 2010);
- GPP 1: Understanding your environmental responsibilities – good environmental practices. (NIEA, SEPA, and Natural Resources Wales, 2020);
- GPP 5: Works and maintenance in or near water. (Natural Resources Wales, NIEA, and SEPA 2018a);
- GPP 6: Working at Construction and Demolition Sites. (NIEA, & SEPA, 2023);
- GPP 13: Vehicle washing and cleaning. (NIEA, SEPA, & Natural Resources Wales, 2021a);

- GPP 21: Pollution Incident Response Planning. (NIEA, SEPA, & Natural Resources Wales, 2021b);
- GPP 22: Dealing with Spills. NIEA, SEPA, & Natural Resources Wales, (2018b); and
- The Sustainable Urban Drainage Systems (SuDS) Manual. (CIRIA, 2015).

4.1 Management Of Pollutants

The presence of potentially silty water, and the risk of potential loss of containment of fuels and oils on the site deem mitigation measures are required at source to minimise the potential release into pathways identified on the ARUP. These are considered in line with the pollution control hierarchy described earlier in Section 4.

Temporary surface water management requirements will be identified in the CEMD and/or the underpinning Risk Assessments and Method Statements (RAMS). Drainage elements such as ditches, filter strips and swales, and filter drains will be installed as early as possible in the construction process to facilitate the appropriate management of construction surface water run-off. Depending on the exact sequencing of works, temporary ditches may be used to minimise surface water reaching the construction works, and to collect run off from construction works. Check dams may be utilised in temporary ditches to slow water flow to allow silt to drop out prior to entering watercourses.

Clean water will be diverted away from exposed soils and work areas where possible to reduce the volume of potentially contaminated water, and areas of ground will not be disturbed until it is necessary for construction to proceed, hence the amount of time stripped ground is exposed will be minimised.

Silt fences or equivalent (straw bales) will be utilised in the vicinity of watercourses downhill of soil strips to prevent silt laden water reaching the watercourses. Ensure run-off pathways are clear of debris to allow clear passage of flow to swales/vegetated buffer strips. Material storage areas to be located at least 10m away from watercourses or sensitive habitats, wherever practicable; to prevent any water runoff discharging into adjacent watercourses or affecting sensitive habitats. Where viable, the surface vegetation and upper layer of topsoil is removed as 'turf', which will be utilised to cover topsoil bunds. Where stored soils are not covered, they will be bladed off or other suitable means to reduce the potential for dust and silt run-off. Stockpiles are exposed for a minimal time, by utilising covers or temporary/permanent seeding, and soil should be stabilised as soon as practical by refilling trenches and reinstating vegetation in line with the PMP.

Certain activities give rise to increased silt pollution risks and require task-specific mitigation measures above those outlined above to manage the risk of silty water reaching a watercourse. An example of this is during the creation of temporary haul routes to the site compound, peat restoration areas and road construction footprint, due to the proximity to the roadside ditches. Any construction task requiring additional water management considerations will be risk assessed appropriately and measures will be included within an update of this document produced in support of the CAR licencing process.

Potential loss of contaminants such as fuels and oils from plant and machinery will be minimised by:

- Utilising well-maintained plant, and check sheets will be completed by plant operatives to reduce the risk of leaks from equipment failure.

- Refuelling will be carried out in designated areas, by trained operatives following site refuelling procedures. The refuelling procedure will take into account best practice laid out in GPP2 and GPP6.
- Plant nappies will be used appropriately to reduce the risk of loss of containment of fuels or oils from plant and machinery, and where practicable, bio-degradable hydraulic fluids will be utilised in machinery during construction.
- Fuel bowsers on site will be under strict management controls, in compliance with the rules of GBR26 and GBR28 under CAR, and as a minimum:
  - A suitable double skinned bowser or tank (or bunded tank) will be utilised for fuel storage.
  - The bowser or tank will be situated at least 10m from the water or nearest drain and protected from collision risks.
  - The distribution hose will be fitted with a shut-off type filling nozzle.
  - The filling nozzle will be fitted with a security lock to prevent unauthorised use.
  - A drip tray will be provided below the distribution hose and nozzle when not in use.
  - A fuel accountancy system will be employed.

All hazardous materials will be subject to Control of Substances Hazardous to Health (COSHH) assessments under the COSHH Regulations (2002). All COSHH assessments will include a section on the environment to highlight any precaution or mitigation requirements. COSHH storage cabinets will be kept locked, with the key under management control to ensure appropriate use and accountability.

Additional mitigation set out in Section 5: Emergency Response Plan aligns to the pollution control hierarchy, and will also be included within the CEMD.

5 Emergency Response Plan

The emergency response plan follows the 'Source – Pathway – Receptor' model as described in GPP1 (NIEA, SEPA, & Environment Agency, 2020).

In the event of an environmental incident the following will be prioritised:

- Stop the source of the pollution;
- Interrupt any pathways to the environment;
- Report the incident in as much detail as possible to site management and the ECoW, who will report to SEPA if necessary;
- Clean the contaminated area and recover pollutants; and
- Analyse the event to gain learning to prevent further incidents.

5.1 Emergency Response to a Pollution Event

The Principal Contractor Site Manager (PCSM) will be responsible for the emergency response to a pollution event.

The site team will be briefed and trained regularly in pollution event scenarios and briefed on the task-specific potential pollutants to ensure there is a complete understanding on the immediate responses required to manage any pollution event. This will include a briefing on the location of the spill kits in place for each task.

5.2 On-Site Pollution Equipment

Appropriate spill plans aligned to the pollution control hierarchy and spill kits will be in place, construction operatives will be trained in the plans and in the use of spill kits.

A comprehensive spill kit will be in the site compound adjacent to the plant storage area, and appropriate grab-bag/ wheelie-bin mobile spill kits will be present wherever plant is operating on site. These mobile spill kits will be appropriately sized to contain the largest quantity of fuel present at that location.

Staff to be briefed on spill kit use and locations regularly in toolbox talks, and practise test pollution incident scenarios using spill kits to ensure competence will be completed at least once every 6 months.

5.3 Disposal Of Used Spill Kit Equipment

If emergency response equipment is used it will be disposed of correctly. If contaminated with oil, fuel, or other hazardous materials it will be segregated from other waste in sealed, labelled bags. Spill kits will be replenished on site promptly, to facilitate this stock of spare equipment will be kept onsite.

6 Pollution Prevention Management

Responsibilities for environmental management including pollution prevention will be detailed within the CEMD, RAMS till be produced for specific construction activities and will ensure the implementation of pollution prevention mitigation measures.

The ECoW will be employed by SPA and will work closely with the PCSM and site team, reviewing RAMS, and ensuring that all the elements of the CEMD and relevant consent conditions are being appropriately implemented. The ECoW will also conduct regular audits to ensure the works are compliant with the relevant consents and licences.

6.1 Maintenance Programme

Maintenance programmes will be identified by principal contractor that will be undertaken (and on what frequency) in relation to vehicles, and plant.

Any permanent or temporary infrastructure used to avoid, intercept or trap/treat pollutants will be maintained by the construction contractor, the effectiveness of which will be reviewed during ECoW audits.

7 Conclusion

Silty water, and loss of containment of fuels and oils have been identified as potential sources of pollution during the construction phase of the ARUD. These have been identified, along with potential pathways for the transfer of pollutant, and surface water receptors for any runoff containing potential pollutants. Mitigation measures have been identified for managing any potential pollutants at source, in pathways and at receptors where appropriate, to minimise the risk of a pollution event occurring. Task-specific mitigation will also be developed through the CAR licencing process and undertaken in alignment with this PPP.

An emergency response plan is in place to reduce the impact of pollution events should they occur, and this explains the actions required prior to and during the construction work

commencing, and the site personnel responsible for managing this plan. It also sets out the spill kits required to manage the day-to-day risks.

A robust maintenance programme will be implemented on site to ensure the plant and equipment on site will be in good condition, therefore reducing the chances of a pollution event occurring. The site staff will be trained and competent to manage a pollution event and will know and understand the importance of following the emergency response plan requirements. All mitigation detailed within this PPP will be included within the CEMD.

8 References

CIRIA, 2015. The SuDS Manual.
Forest Civil Engineering & Scottish Natural Heritage, 2010. Floating Roads on Peat.
NIEA & SEPA, 2023. GPP6: Working at Construction and Demolition Sites.
NIEA, SEPA, & Environment Agency, 2020. Guidance for Pollution Prevention: GPP1: Understanding your Environmental Responsibilities - Good Environmental Practices.
NIEA, SEPA, & Natural Resources Wales, 2018a. GPP 5: Works and maintenance in or near water.
NIEA, SEPA, & Natural Resources Wales, 2018b. GPP 22: Dealing with Spills.
NIEA, SEPA, & Natural Resources Wales, 2021a. GPP 13: Vehicle washing and cleaning.
NIEA, SEPA, & Natural Resources Wales, 2021b. GPP 21: Pollution Incident Response Planning.
SEPA. 2021. River Basin Management Plan 3. RBMP3 (sepa.org.uk). Accessed 30/01/2024.
The Highland Council, 2010. General Planning Guidance: Construction Environmental Management Process for Large Scale Projects. https://www.highland.gov.uk/downloads/file/2644/construction_environmental_management_process_for_large_scale_projects. Accessed 04/01/2024.

9 Glossary

Acronym	Definition
ARUD	Arnish Road Upgrade Development
APIE	Arnish Point Industrial Estate
CAR	Water Environment (Controlled Activities) (Scotland) Regulations 2011 as amended
CEMD	Construction Environment Management Document
CIRIA	Construction Industry Research Information Association
CnES	Comhairle nan Eilean Siar
COSHH	Control of Substances Hazardous to Health
DMRB	Design Manual for Roads and Bridges
SDWP	Stornoway Deep Water Port
ECoW	Environmental Clerk of Works
EIA	Environmental Impact Assessment
GBRs	General Binding Rules
m	Metres
NIEA	Northern Ireland Environment Agency
PCSM	Principal Contractor Site Manager
PMP	Peat Management Plan
PPP	Pollution Prevention Plan
RAMS	Risk Assessment and Method Statement
RLB	Red Line Boundary
SEPA	Scottish Environment Protection Agency
SPA	Stornoway Port Authority
SuDS	Sustainable Urban Drainage Systems