



SHORE END REMEDIAL CONSTRUCTION ENVIRONMENTAL MANAGEMENT PLAN

BMC Ref: CB0226

6th May 2022

Prepared by: Briggs Marine Contractors Ltd. Seaforth House Seaforth Place Burntisland KY3 9AX Tel: +44 (0)1592 872939

Tel: +44 (0)1592 872939 www.briggsmarine.com

CONTENTS

1.	OVERVIEW	6
1	.1 Introduction	6
1	.1.1 - Scotland's Marine Plan	6
1	.2. Project Description	7
	1.2.1. Overview	7
	1.2.2.Decommissioned OOS cables	23
	1.2.3. Installation of split pipe	23
	1.2.4 Reburial of exposed sections of cable	23
1	.3. Construction Programme	24
1	.4. Onsite Roles and Responsibilities	24
2. (GENERAL ARRANGEMENTS	26
2	.1. Hours of Work	26
2	.2. Management of Works	26
2	.3. Communication and Monitoring	26
2	.4 Environmental emergency contacts	28
3. 8	SITE MANAGEMENT	29
3	.1. Site Layout and Housekeeping	29
3	.2. Site Traffic	29
3	.3. Plant and Equipment	29
3	.4. Contractor's Plant	29
3	.5 Lighting	29
4. 8	SITE SPECIFIC ENVIRONMENTAL MANAGEMENT	30
4	.1. Introduction	30
	Environmental mapping (Areas 1 + 2 Loch Lomond)	31
	Environmental mapping for Mull – Calve Island (Mull landfall)	32
	Environmental mapping for Mull – Iona (Mull landfall)	33
	Environmental mapping Mainland – Kerrera (Kerrera landfall)	35
	Environmental mapping Otter Ferry	36
	Environmental mapping Pentland Firth West (Murkle Bay)	37
	Environmental mapping Eday to Westray cable – Eday landfall	38
5. V	VATER QUALITY PROTECTION AND POLLUTION	42
5	.1. Prevention	42
	5.1.1. Introduction	42
	5.1.2. Drainage Management Strategy	42
	5.1.3. Pollution Prevention	42
	5.1.4. Watercourse Crossing	42
	5.1.5. Water / Ground Contamination (from Spillage)	42
	5.1.6. Fuel storage	43



5.1.7. Pollution Control	43
5.1.8. COSHH Assessment	43
5.1.9. Welfare Facility	43
5.2. Air Quality	43
5.2.1. General Principals	43
5.2.2. Environmental Control Measures	43
5.3 WORKING IN OR NEAR SURFACE WATERS	44
5.3.1. General	44
5.3.2 Surface Water Control	45
5.4 WASTE MANAGEMENT	45
6. NOISE AND VIBRATION	46
6.1. General Principals	46
7. EMERGENCY PROCEDURES	46
7.1. Introduction	46
7.2. Incident Reporting	46
8. BREEDING BIRD PROTECTION	46
9. OTTER PROTECTION	46
10. REINSTATEMENT	46
11. BAD WEATHER	47
12. BIOSECURITY	47
APPENDIX 1 – Correspondence and commitments register	48
Figure 1 – Remedial work required at Carrick Bay	8
Figure 2 – Exposed cable above MLWS on Carrick Bay	
Figure 3- Concrete bags shown at Inchmurrin Island	
Figure 4- Exposed cable at low water Inchmurrin Island	
Figure 5- Remedial work required at Mull (Mull-Calve Island cable) broken concrete bags	
Figure 6- Exposed cable on Mull (Mull-Calve Island cable)	
Figure 7 - Mull - Iona (Mull landfall) showing exposed cable	
Figure 8 - Exposed cable at Mull landfall (Mull-Iona Island)	
Figure 9 - Overview of remedial required at Kerrera landfall, all work above MHWS	
Figure 10 - Cable exposure at SSEN103 Otter Ferry	
Figure 11 - Overview of cable exposure at Otter Ferry	
Figure 12 - Section of disconnected cable at Otter Ferry (N)	
Figure 13 - Disconnected cable seen south of SSEN 103	
Figure 14 - Site location Murkle Bay	
Figure 15 - Exposure seen of Murkle Bay, during a SSEN inspection	
Figure 16 - OOS Cable on Eday entering the Sand dunes	
Figure 17- Cross section of proposed burial	
rigate 17 Closs section of proposed buildi	24



Figure 18 -Environmental Sensitivities near to work location Loch Lomond	31
Figure 19- Mull – Calve Island (Mull landfall) Environmental sensitivities	32
Figure 20 - Seal haul out locations on Mull	34
Figure 21 - Kerrera landfall - environmental sensitivities	35
Figure 22 - Otter Ferry environmental sensitivities	36
Figure 23 - Environmental sensitivities - Pentland Firth West - Murkle Bay	37
Figure 24 - Environmental sensitivities Eday	38
Table 1-Working corridor coordinates	7
Table 2-Planned works at each location	22
Table 3-Roles and Responsibilities on site	24
Table 4-Management Roles	26
Table 5-Planned Communications	26
Table 6 - Emergency contacts	28
Table 7-Site Specific Designations	30
Table 8-CFMP Requirements	40



Amendment Register

Revision	Date	Issued by	Approved by	Amendments
Rev 1.0	17/02/22	SG	CF	
Rev 2.0	06/05/22	SG	CF	

Abbreviations

Abbreviation	Definition
ВМС	Briggs Marine Contractors – Principal Contractor
ECoW	Environmental Clerk of Works
EIA	Environmental Impact Assessment
MHWS	Mean High Water Spring
MLWS	Mean Low Water Spring
NNR	National Nature Reserves
PAC	Pre-Application Consultation
SAC	Special Area of Conservation
SEPA	Scottish Environmental Protection Agency
SFF	Scottish Fishermen's Federation
SHEPD	Scottish Hydro Electric Power Distribution
SPA	Special Protection Area
SPP	Scottish Planning Policy
SSEN	Scottish & Southern Energy Networks - Client
SSSI	Site of Special Scientific Interest
RAMSAR	Wetland site designated of international importance under the Ramsar Convention
WFD	Water Framework Directive



SSEN: Shore End Remedial Rev 1.0 – 17.02.2022 CFMP CB02262

1. OVERVIEW

1.1 Introduction

This Construction Environmental Management Plan (CEMP) has been prepared by Briggs Marine contractors (BMC) on behalf of Scottish Hydro Electric Power Distribution plc (SHEPD).

During routine inspections by SHEPD, essential maintenance works were identified to ensure a secure, safe supply of electricity to the islands and ensure the safety of the public when using the beaches. BMC have been contracted to carry out these works.

The proposed locations are:

Loch Lomond (Carrick Bay (1) and Inchmurrin Island (2))

Mull - Calve Island cable - Mull landfall (3)

Mull - Iona - Mull landfall (4)

Mainland to Kerrera (Kerrera landfall) (5)

Otter Ferry (6) (6a) (6b)

Pentland Firth West cable (Murkle Bay landfall) (7)

Eday to Westray cable (Eday landfall) (8)

This plan details project specific construction and environmental management measures in respect of works associated with maintenance work on the exposed electricity cable at the shoreline locations .

1.1.1 - Scotland's Marine Plan

Scotland's National Marine Plan is a framework for maritime spatial planning and aims to promote the sustainable development of marine areas, resources, and users.

The proposed project consists of maintenance work on existing electricity cables:

- Reburial of exposed sections at the shore end (from MLWS to MHWS), where burial isn't achievable then:
- Manual placement of iron shells along the exposed cables for their protection.
- Removal of old concrete bags previously used as protection.
- Three subsea disconnected cables need removed from MLWS to shore.

The works will have little effect in relation to landscape or seascapes as it is a minor change in the visual aspects of an existing exposed piece of infrastructure. There are also no marine noise effects associated with the proposed works. Due to the scale of the proposed works and the very limited nature of the effects on the marine environment from placing a number of iron shells onto the foreshore, reburial of sections of exposed cable and removal of disconnected subsea cables from low water to shore, it was concluded that further consideration of the policies within the National Marine Plan was not necessary.

This CEMP provides information and guidance on the following topics:

- Waste Management;
- Air Quality;
- · Water Quality Protection and Pollution Prevention;
- Soil Management;
- Ecology;
- Cultural and Heritage; and
- · Emergency Procedures.

This document also provides further detail and control measures, and include:

- · Otter control measures
- · Breeding Bird Control measures

This CEMP is a live document that will be reviewed at regular intervals by Briggs onsite environment team and he appointed Environmental Clerk of Works (ECoW) to reflect the progress of works, any changes in environmental requirements and to account for any emerging best practice or updates (from either statutory bodies or client/contractor best practice).



CEMP

1.2. Project Description

1.2.1. Overview

The proposed project will see cable repairs at eight sites, the figures overleaf show the remedial work required and also please refer Table 2 that gives the coordinates of the proposed working corridor. Please also note that Carrick Bay and Inchmurrin do not require a marine licence for these works due to being situated on Loch Lomond. Mainland to Kerrera (Kerrera landfall) works are above MHWS and also do not require a marine licence.

LANDFALL	Remedial Location	NW Corridor	NE Corridor	SW Corridor	SE Corridor
CARRICK	56° 2.342'N,	56° 2.348'N,	56° 2.343'N,	56° 2.344'N,	56° 2.340'N,
BAY (1)	4° 37.763'W	4° 37.763'W	4° 37.755'W	4° 37.772'W	4° 37.762'W
INCHMURRIN	56° 2.544'N,	56° 2.549'N,	56° 2.542'N,	56° 2.547'N,	56° 2.541'N,
ISLAND (2)	4° 36.818'W	4° 36.826'W	4° 36.826'W	4° 36.816'W	4° 36.817'W
Mull (calve island) (3)	56° 36.862'N,	56° 36.863'N,	56° 36.858'N,	56° 36.862'N,	56° 36.857'N,
	6° 2.681'W	6° 2.675'W	6° 2.674'W	6° 2.687'W	6° 2.684'W
MULL (Iona)	56° 20.434'N,	56° 20.440'N,	56° 20.431'N,	56° 20.435'N,	56° 20.427'N,
(4)	6° 21.507'W	6° 21.515'W	6° 21.520'W	6° 21.492'W	6° 21.496'W
KERRERA (5)	56° 23.602'N,	56° 23.599'N,	56° 23.604'N,	56° 23.598'N	56° 23.605'N,
	5° 31.563'W	5° 31.574'W	5° 31.571'W	5° 31.561'W	5° 31.559'W
OTTER FERRY (6, 6a and 6b)	56° 0.678'N, 5° 19.090'W (6) 56° 0.634'N, 5° 19.108'W (6a N) 56° 0.685'N, 5° 19.044'W (6b S)	56° 0.662'N, 5° 19.169'W	56° 0.710'N, 5° 19.045'W	56° 0.605'N, 5° 19.089'W	56° 0.662'N, 5° 18.983'W
PENTLAND	58° 36.239'N,	58° 36.311'N,	58° 36.288'N,	58° 36.213'N,	58° 36.196'N
FIRTH (7)	3° 25.968'W	3° 25.884'W	3° 25.855'W	3° 26.047'W	3° 26.007'W
EDAY (8)	59° 11.001'N,	59° 11.003'N,	59° 11.003'N,	59° 10.985'N,	59° 10.985'N,
	2° 48.097'W	2° 48.105'W	2° 48.086'W	2° 48.104'W	2° 48.085'W

Table 1-Working corridor coordinates



Carrick Bay 1

CEMP

Carrick Bay is accessed via Cameron Golf Club. Heading right upon entry towards the hired lodges and continue along the road. There is a 'learning' hut, with ample parking. To the left of the learning hut lies a dirt track that leads down to the shore bank. This track would require 4x4 due to boggy sections of the track. At the end there is an old fence which is partially fallen over. The subsea cable lies approx. 75-100m right to the fence/track. The landfall of Carrick Bay consists of shingle/sand, with an overgrown vegetated bank shore on the banks and a few fallen down trees. Access with a 7tonne excavator should be viable, after permission to temporarily remove the fence. There would also be a requirement to move one of the bigger fallen trees and make sure the access path is clear of any further debris (such as big branches.)

Another disconnected cable was also seen next to the SSEN91 cable, coming from the terminal pole and upon entering the water appeared to be heading off in the southern direction in the Loch. This cable requires reburial for protection.

No diamond beacon seen at this location.

Proposed work for this remedial work would be reburial (where possible) and to also allow for 10m of split pipe in case burial unable to be achieved. Removal of any old concrete bags would also be required. The disconnected cable can be seen in Figure 1.

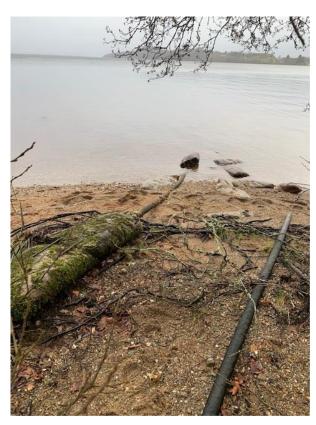


Figure 1 - Remedial work required at Carrick Bay



Page 8 of 48



Figure 2 – Exposed cable above MLWS on Carrick Bay



Inchmurrin Island 2

Access to the island is by a small ferry service collection at Burnfoot jetty (10min drive south from Carrick Golf Club) and drop off at the Inchmurrin Hotel. This jetty would be utilised for material delivery. At the time of Briggs Marine visit the water was at a high levek and no exposed cable was visible. It is suspected that when the previous site visit was carried out with SSEN that it had been dry weather, enabling visibility of the subsea cable only concrete mattresses were seen to low water. For remedial work to be carried out on this shore end, would require a pre-construction site visit when working on Carrick shore end to ensure work can commence. This area would require clearance before access can be achieved with an excavator

Proposed work would be to aim to rebury the exposure to MLWS, also to allow for up to 5m of split pipe installation and to remove any old concrete bags.



Figure 3- Concrete bags shown at Inchmurrin Island



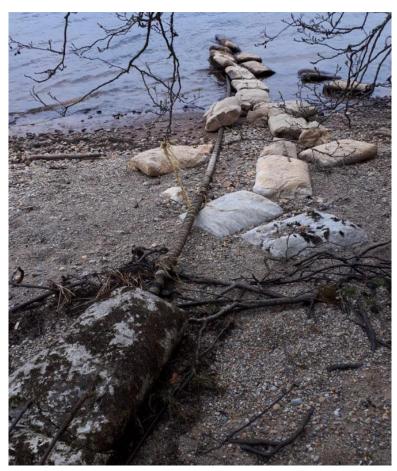


Figure 4- Exposed cable at low water Inchmurrin Island



MULL-CALVE ISLAND 3

The access to Mull-Calve Island (Mull shore end) is not accessible by vehicle. There is parking at a local nature park, whereby access to the site is approximately 5mins on foot, via a field. The site is also located at the bottom of a steep hill, making the delivering of split pipe via the embankment a potential HSE hazard. Due to this, access the shore location and material delivery will be via a landing craft. BMC would not need to utilise a 7tonne excavator, as no appropriate access for a tracked vehicle.

The subsea cable is exposed in sections from low water up to high water. Approximately 10m of split pipe would have to be installed. Also old concrete mattresses will need to be removed. Reburial not possible at this location due to ground conditions. Landing craft can remove all old concrete bags and transport to local recycle centre in Oban.



Figure 5- Remedial work required at Mull (Mull-Calve Island cable) broken concrete bags





Figure 6- Exposed cable on Mull (Mull-Calve Island cable)



Mull-Iona 4

The cable is exposed in sections from MLWS down to MLWS. Potential for reburial of the sections of exposed cable. Although allow for split pipe would also be installed, approximately 10m. Also noted was damage to the cable, where the wire armour was visible with signs of corrosion on the cable. This section would require a repair, with shrink cap around the affected area, secured with denzo tape. Split pipe would be required at the area also.

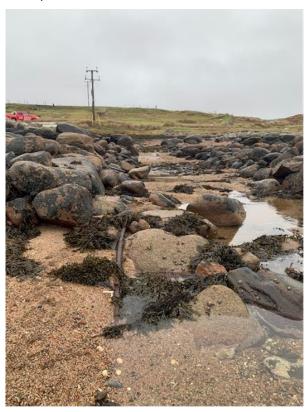


Figure 7 - Mull - Iona (Mull landfall) showing exposed cable



Figure 8 - Exposed cable at Mull landfall (Mull-lona Island)



KERRERA 5

The exposed cable is above MHWS. Approximately 2-3m of split pipe would be required. The cable is exposed in sections from the grass embankment down to the shore. The cable appears to have damage to the armour wires, due to this, shrink capping would be required and secured with denzo tape before split pipe installation.



Figure 9 - Overview of remedial required at Kerrera landfall, all work above MHWS



OTTER FERRY 6

Approximately 4m of subsea exposed at the top of the beach area, next to rock formation. The length from top of beach down to MLWS is approximately 97m in length. SSEN 103 also requires remedial work at MLWS. Sections of split pipe to be reburied (where possible) from top of shore (4m) and a further 10m split pipe required for exposed sections from MLWS towards the top of shore.

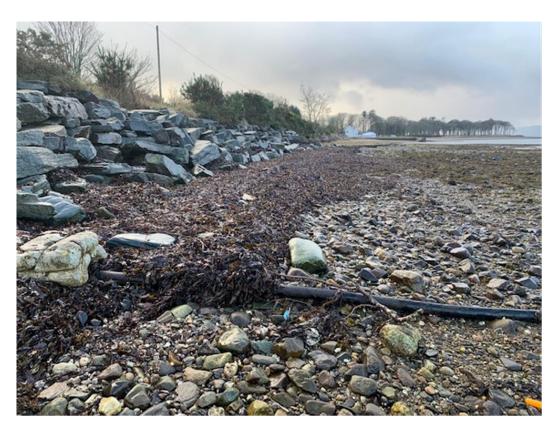


Figure 10 - Cable exposure at SSEN103 Otter Ferry





Figure 11 - Overview of cable exposure at Otter Ferry



OTTER FERRY 6A

Upon inspection SSEN 103 Otter Ferry in service cable, further exposure was seen to two out of service cables (north and south of in the service cable). Both of which require the cable to be removed from MLWS up to the shore end. Approximately 95m. The disconnected cable will be cut, earth, sealed at low water. An excavator will then assist to pull the disconnected cable from the beach. The areas will be remediated using sand from the local environment. The disconnected cable will then be cut with a Stihl saw above MHWS into movable sections for the recycle contractor to collect.

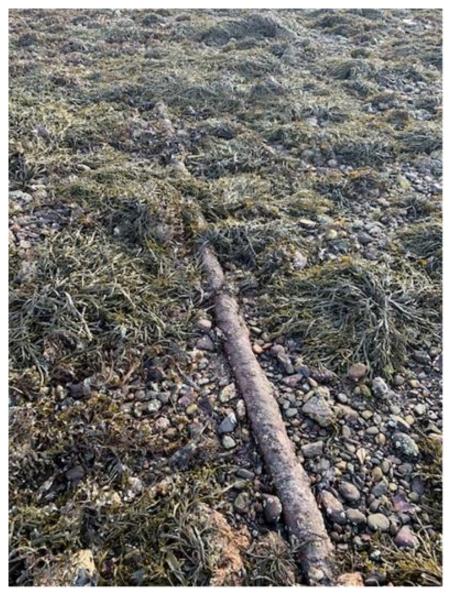


Figure 12 - Section of disconnected cable at Otter Ferry (N)



OTTER FERRY 6B

Upon inspection SSEN 103 Otter Ferry in service cable, further exposure was seen to two out of service cables (north and south of in the service cable). Both of which require the cable to be removed from MLWS up to the shore end. Approximately 95m. The disconnected cable will be cut, earth, sealed at low water. An excavator will then assist to pull the disconnected cable from the beach. The areas will be remediated using sand from the local environment. The disconnected cable will then be cut with a Stihl saw above MHWS into movable sections for the recycle contractor to collect.

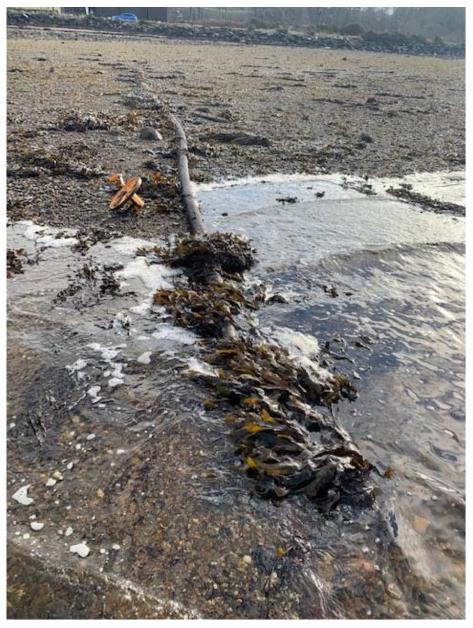


Figure 13 - Disconnected cable seen south of SSEN 103



PENTLAND FIRTH (MURKLE BAY)



Figure 14 - Site location Murkle Bay



Figure 15 - Exposure seen of Murkle Bay, during a SSEN inspection



EDAY

120m of cable is required to be removed from MLWS through the sand dunes to the TJP. Previously nesting birds were of close proximity to this cable (April 2021), approximately circa 15m away. Before work can commence to remove this cable an ECoW site survey will be achieved to ensure no nesting birds close to this location. Removal of the cable will follow a stringent method to ensure minimal disturbance to habitats and to also ensure reinstatement of the sand dunes.



Figure 16 - OOS Cable on Eday entering the Sand dunes



Cable Route	Landfall	Cable Removal	Split pipe installation	Concrete Bag Removal	Cable Burial
1. Loch Lomond SSEN 91	Carrick Bay (2 cables)	No	Yes – allow for a maximum of 10m	Yes	Where possible and burial of disconnected cable
2.Loch Lomond SSEN 91	Inchmurrin Island	No	Yes – allow for a maximum of 5m	Yes	Where possible
3. Mull-Calve Island SSEN 75	Mull	No	Yes – allow for a maximum of 10m	Yes	Where possible
4. Mull-Iona SSEN 57	Mull	No	Yes – allow for a maximum of 10m	No	Where possible
5.Mainland to Kerrera SSEN 76	Kerrera	No	Yes – 2-3m required	No	No
6.Otter Ferry SSEN 103	Otter Ferry	No	Yes – allow for a maximum of 15m	No	Where possible
6a. OOS cable Otter Ferry (N)	Otter Ferry	Yes – 95m	No	No	No
6b. OOS Otter Ferry (S)	Otter Ferry	Yes – 95m	No	No	No
7 Pentland First West SSEN 91	Pentland First West (Murkle Bay)	-	Yes – allow for a maximum of 2m	No	No
8. Eday- Westray SSEN 124	Eday	120m	No	No	No

Table 2-Planned works at each location

Please refer to Table 2 for areas that will require the following methods during the works:



SSEN: Shore End Remedial Rev 1.0 – 17.02.2022
CEMP CB02262

1.2.2.Decommissioned OOS cables

The disconnected cables that have been disconnected from distribution network will require:

- 1. Mobile welfare unit and general hand held cutting equipment mobilised to site
- 2. Disconnect subsea cable to be cut within the marine channel at low water
- 3. The cable will be then be cut, with hand held cutting tool, b) earthed and c) capped, with cold shrink cap at low water (seaward side of the dune on Eday). The cut cable will then be removed from low water and shore environment.

Applicable to Eday only:

- 4. Where the cable on Eday enters the sand dunes, extra environmental mitigation will be put in place to ensure minimal habitat disturbance; Their will also be an ECoW present during these works for added mitigation.
- 5. The subsea cable either side of the dune and pull the cable out of from the sand dune. This will ensure minimal disruption to habitats, as opposed to digging through the dunes.
- 6. The vegetation on top of the dune to be removed in shallow turves (3-5cm deep) using hand tools and sliding these onto a ridged board, Wetting the area prior to cutting turves will help to moisten soil and keep intact.
- 7. Dig the redundant subsea cable from low water to sand dunes.
- 8. Cut cable into sections and recycle (through an official recycling merchant).
- 9. Reinstate and/soil first and then slide turves back on top Avoid lifting to maintain integrity
- 10. Gaps / broken vegetation should be minimised where possible. The vegetation and turves will help to trap sand and seeds so should naturally re-seed over time.
- 11. The vegetation should not be compacted after reinstating, even if there is a slight ridge proud of surrounding vegetation. The dune will settle naturally so will fade over time.
- 12. Consideration will be given to install brushwood fencing, to reduce wind-scour
- * Please note that it is likely that slumping may occur in relatively intact 'blocks' of sand and vegetation . These can be used to rebuild the dune face and ridge. Any loose grass can be reinstated and loose sand shaken out on top of the dune ridge vegetation.

1.2.3. Installation of split pipe

- 1. Placement of split pipe/iron shells.
- 2. Mobilisation of 7 tonne excavator, mobile welfare unit (suitable for a max. of 5 personnel) and equipment close to the project location. With the exception of Mull-Calve Island (Mull landfall), where delivery of split pipe will be by landing craft.
- 3. The iron half shells will be delivered by HIAB lorries close to the project location (with the exception of Mull-Calve Island).
- 4. Iron shells will then be transferred from the HIAB lorry into a tracked excavator for transport to the cable
- 5. Where necessary, loose stones from low water or shore end will be cleared from around the cable using a small excavator or manually by hand
- 6. Individual iron half shells will be manually placed around the exposed cable. To ensure that they sufficiently cover the cable the two half shells will be fused together.
- 7. The half shell will then be secured to each other and held in place by clamps.
- 8. Removal of any excess shells and equipment from the project locations.
- 9. The shells will stay in place until further maintenance work is required.

1.2.4 Reburial of exposed sections of cable

- 1. Mobilisation of 7 tonne excavator, mobile welfare unit and equipment close to project location
- 2. Where the cable is exposed between both landfalls these areas require burial the of exposed cable where possible from MLWS to MHWS..
- 3. This will be achieved by using a 7 tonne excavator to create a trench alongside the existing cable route.
- 4. The existing cable will then be secured within the trench.



5. This will then be backfilled with 'won' material, to ensure minimal disruption to ecological habitats. Please also refer to Figure 17 for cross section of proposed burial.

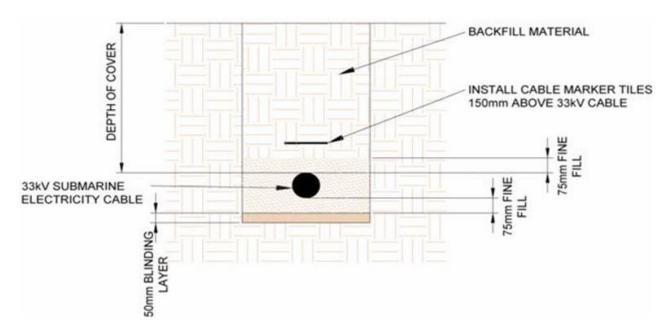


Figure 17- Cross section of proposed burial

The proposed works to all site locations would commence as soon as feasible to do so tide/weather permitting. Access will be taken using existing access tracks where possible and the excavator will be tracked.

1.3. Construction Programme

Works will take place when an appropriate tide will permit. This should be achieved between September and October 2022 for all sites.

1.4. Onsite Roles and Responsibilities

The roles and responsibilities of those onsite with a responsibility to manage environmental risk are described in Table 2.

Table 3-Roles and Responsibilities on site

Role	Responsibility	Contact details
SSEN Project Manager	Oversee the project to ensure all works are carried out effectively and within the Works Information Package.	Kevin Wilson,
Site Supervisor	Ensure the implementation of the CEMP; Ensure that the workforce is made aware of environmental risks/issues associated with the project; Ensure that environmental incidents are reported to the company Helpline and Client in line with reporting timescales and requirements; Ensure that environmental issues are included in site management meetings;	TBC



	Ensure that site environmental controls are regularly monitored and recorded; and		
	• Ensure environmental risk assessments are up to date and changes to the construction site posing environmental risk are recorded on the risk assessment, and where necessary updates/amendments to the CEMP are completed.		
BMC Assistant Project Manager	 Oversee the project to ensure that the CEMP is completed Ensure that the workforce is made aware of environmental risks relating to the project; Ensure environmental risk assessments are up to date and changes to the construction site posing environmental risk are recorded on the risk assessment; Assisting SSEN with Landowner liaison/coordination 	Calum Fraser Tel :	
BMC Site Foreman	 Ensure the implementation of this plan; Ensure that the workforce is made aware of environmental risks relating to the project; 	Andy Black Tel:	
	Ensure that environmental incidents are reported to the company Helpline and Client in line with reporting timescales and requirements;		
	Ensure that environmental issues are included in site management meetings;		
	Ensure that site environmental controls are regularly monitored and recorded;		
	Inform BMC PM of any new environmental risk		
Role	Responsibility	Contact details	
ECoW	Undertake pre-construction site walk over of all proposed work sites	Tracy Kerr Consultant Ecologist	
	Co-ordinate and manage the identified environmental issues on the project	WSP	
	Ensure the implementation of this plan;	T-1-	
	• Provide support on any environmental issues on the Project;	Tel:	
	• Ensure environmental risk assessments are up to date and changes to the construction site posing environmental risk are recorded on the risk assessment, and whose page and updates for the		
	and where necessary updates/amendments to the CEMP are completed;		
	 CEMP are completed; Provide additional technical support to the Project as required by the Project Manager/Site 		



CEMP

2. GENERAL ARRANGEMENTS

2.1. Hours of Work

Most construction activities will be undertaken on Monday to Sunday between 07:00 and 19:00, daylight and tide dependant.

2.2. Management of Works

Table 3 shows the project management roles and named personnel accountable for and relevant to the implementation of the CEMP.

Table 4-Management Roles

Role	Name and contact details
SSEN Project Manager	Kevin Wilson Tel:
SSEN Project Environmental Manager	Katy Urquhart M:
SHE (Safety Health Environment)	Paul Webster Tel:
Site Supervisor	TBC
BMC Project Manager	Calum Fraser Tel: 0
WSP Contact	Tracy Kerr Tel:

2.3. Communication and Monitoring

Table 4 describes the mechanisms for the communication of environmental risk and the frequency at which they shall be completed.

Table 5-Planned Communications

Meeting/Briefing	Frequency
HSEQ and Progress Meeting	Weekly
Daily site team briefs	Daily
Risk Assessment/Method Statement briefings	Each job task



Suitable monitoring of the CEMP

implementation

Environmental Toolbox Talks including good environmental practice	Minimum of one per fortnight
Site Induction	On first attendance at site

Identified activity of the ECoW



2.4 Environmental emergency contacts

Table 6 - Emergency contacts

Contact	Contact details	
BMC Project Manager	Suzanne Grimes	
	M:	
SSEN Project Environmental Manager	Katy Urquhart	
	M:	
SHE (Safety Health	Paul Webster	
Environment)	Tel:	
WSP Contact	Tracy Kerr	
WGF Comact	Tel:	
SEPA Emergency Environmental	0800 80 70 60	
event contact number		
SEPA Flood line	0345 988 1188	
Scottish Water	0800 0778 778 (24 hours)	
Nature Scot	Great Glen House	
	Leachkin Road	
	Inverness	
	IV3 8NW	
	T: 01463 725 000	
Argyll and Bute Council	Argyll and Bute Council,	
	Kilmory,	
	Lochgilphead,	
	Argyll,	
	PA31 8RT	
	T: 01546 605522	
Orkney Council	School Place	
	Kirkwal	
	Orkney, KW15 1NY	
Highland Council	T: 01856 873535 The Highland Council Headquarters Glenurquhart Road Inverness IV3 5NX	
	Out of hours: 01349 886690	



SSEN: Shore End Remedial Rev 1.0 – 17.02.2022
CEMP CB02262

3. SITE MANAGEMENT

3.1. Site Layout and Housekeeping

Mobile welfare units will be available to site personnel and will not require any ground preparation. Material laydown areas shall be limited to short durations and be in the immediate vicinity of the works, i.e. iron shells delivered to site prior to work commencing.

The site will be maintained in a tidy and well-managed state at all times.

3.2. Site Traffic

Traffic during construction will be minimal and restricted to a small number of works vehicles and machinery. Access will be taken using existing access tracks where possible. All traffic shall be escorted in by approved site personnel.

3.3. Plant and Equipment

Construction vehicles and plant shall be regularly maintained. Emergency maintenance to construction plant will be carried out on site, where practicable, in a designated area and on an impermeable surface. In order to contain any environmental risk posed by vehicle and plant maintenance.

A lockable bunded fuel bowser constructed in accordance with SEPA Guidelines – Guidance 2, will be used for refuelling on site.

In the first instance, please refer to Appendix B CB0226 – 1003 GEMP, where GEMP 7 – Oil storage and refuelling should be implemented.

Where practicable, refuelling shall take place at a dedicated refuelling area. Where this is impracticable, a nominated Fuel Marshal shall be responsible for overseeing refuelling activities and to ensure that refuelling of mobile plant does not take place within 30 m of a water environment. The refuelling bowser shall be equipped with a spill kit (refer to section 7.2 – Emergency procedures, for information regarding spill kits) and personnel will be trained in their use as part of the site induction training.

All construction vehicles and mobile plant operators shall have easy access to spill kits during vehicle and mobile plant operation through a combination of vehicle spill kits and larger capacity fixed location spill kits.

Plant nappies/drip trays shall be utilised for stationary plant and regular inspection arrangements shall be in place. Where plant is left stationary in excess of one hour, plant nappies will be required. No idling is permitted on plant and vehicles on site, to reduce unnecessary emissions from being released.

3.4. Contractor's Plant

BMC will provide a list of plant proposed to be used to undertake the works. The BMC Project Manager must be provided with this list prior to works commencing. It will be the responsibility of the SSEN Project Manager to approve all as appropriate.

3.5 Lighting

Lighting will be directional and positioned to minimise light spill outside the site compound/works area. Particular care should be taken to avoid spill on known sensitive receptors (such as the shore).

No artificial lighting should directly illuminate otter foraging/commuting habitat and/or be left on overnight in proximity to such features unless authorised by the appointed ECoW.

It is not anticipated that artificial lighting will be required due to adequate daylight hours to complete the tasks.



4. SITE SPECIFIC ENVIRONMENTAL MANAGEMENT

4.1. Introduction

Table 7-Site Specific Designations

Designation	
Special Area of Conservation (SAC)	Areas considered to be important for certain habitats and non-bird species of interest in a European context. One of the main mechanisms by which the EC Habitats and Species Directive 1992 will be implemented.
Special Protection Area (SPA)	Sites designated by the UK Government to protect certain rare or vulnerable species and regularly occurring migratory species of birds.
Site of Special Scientific Interest (SSSI)	Sites of Special Scientific Interest (SSSIs) are those areas of land and water that best represent natural heritage in terms of their: • flora – i.e. plants • fauna – i.e. animals • geology – i.e. rocks • geomorphology – i.e. landforms • a mixture of these natural features
Marine Protected Area (MPA)	Thirty Marine Protected Areas (MPAs) were designated in Scotland's seas on 24 July 2014; 17 of these MPAs fall under the Marine (Scotland) Act 2010 in inshore waters.
Marine Consultation Area (MCA)	Marine Consultation Areas are identified by NatureScot as deserving particular distinction in respect of the quality and sensitivity of the marine environment within them. Their selection encourages coastal communities and management bodies to be aware of marine conservation issues in the area.
RAMSAR	A Ramsar Site is a wetland site designated of international importance under the Ramsar Convention. The Convention on Wetlands, known as the Ramsar Convention, is an intergovernmental environmental treaty established in 1971 by UNESCO, and coming into force in 1975.
Natural Nature Reserves	National Nature Reserves (NNRs) are areas of land set aside for nature. As in other countries, the accolade is given to Scotland's best wildlife sites, to promote their conservation and enjoyment. Most reserves contain nationally or internationally important habitats and species, so the wildlife is managed very carefully. Visitor facilities are designed and managed to ensure that people can enjoy NNRs without harming or disturbing the wildlife that lives there.



Environmental mapping (Areas 1 + 2 Loch Lomond)



Figure 18 -Environmental Sensitivities near to work location Loch Lomond

No environmental sensitivities present within an immediate 200m radius.

Otter presence well documented around Loch Lomond, exact population cannot be estimated due to individual's extensive habitat, approximately 10-20km of stream river or loch. The greatest threat to otters in this area are traffic accidents or pollution which could impact prey. Relatively unaffected by human presence in the area. (McCafferty, 2005). An ECoW site walkover will be conducted prior to any work commencing at these sites. If during the survey Otter presence is discovered then an Otter license will be required, before works can commence on site.



Environmental mapping for Mull – Calve Island (Mull landfall)

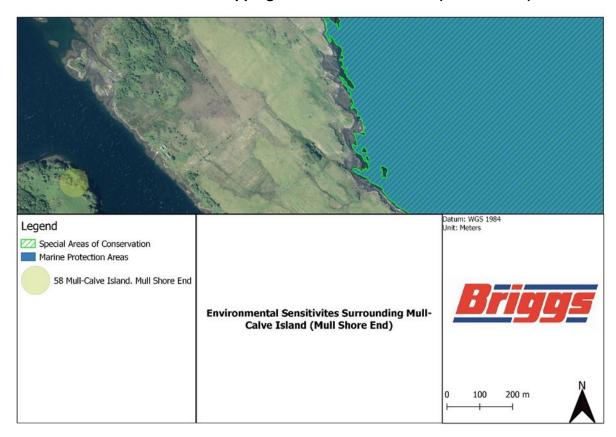


Figure 19- Mull - Calve Island (Mull landfall) Environmental sensitivities

No sensitivities present within a 200m radius, also no seal haul out sites even in nearby vicinity. Sensitivities that can be seen on the map are the MPA Loch Sunart to the Sound of Jura and Inner Hebridies and Minches SAC. Both protected areas are 700 meters away and are separated by land, therefore will not see any impacts. An ECoW site walkover will be conducted prior to any work commencing at these sites.



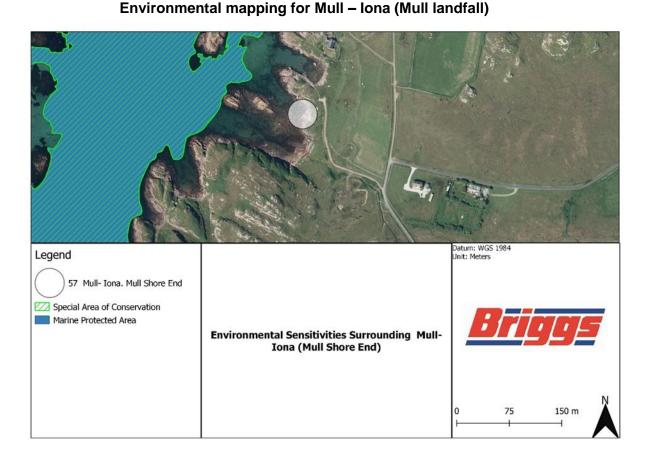


Figure 15- Mull – Iona cable (Mull landfall) environmental sensitive areas

At site 57 (Mull-Iona) at the Mull shore end there is a designated marine protected area (MPA) and a special area of conservation (SAC) within 100 metres of the cable's location.

The MPA is the Sea of Hebrides and has been designated as such due to a presence of basking sharks, Minke whales and fronts. Basking sharks migrate to the area during summer to feed at surface from June-October yearly. There are often large groups of basking whales, and they can remain in the area until late October. The fronts provide the ideal habitats required by basking sharks and Minke whales due to its high rates of productivity and nutrients creating the perfect feeding grounds of zooplankton and pelagic fish. Sightings of Minke whales is at its highest during summer months but there is evidence to suggest they are present year-round in lower numbers.

The Inner Hebrides and Minches SAC has the qualifying interest of harbour porpoise. It has been predicted and observed that this area has a high density of harbour porpoise particularly in the summer months. Harbour porpoise are present year-round in this area and feed on a wide variety of fish, likely those most abundant within the area. The site offers a variety of substrates from sandy with low amounts of silt to mixed and muddy which allows a variety of prey to thrive in the area.

According to Marine Scotland there are no seal-haul out sites in the immediate area. The nearest sites are over 5km away as shown in the map below with purple indicating haul out sites and blue indicating breeding colony seal haul out sites.

It is unlikely that any of the interests above would be impacted by any shoreline remediation works as they should not be present this close to the shore. Especially as there are no seal haul-out sites nearby.

An ECoW site walkover will be conducted prior to any work commencing at these sites.





Figure 20 - Seal haul out locations on Mull



CEMP

Legend Special Area of Conservation Marine Protection Area Malnland Kerrera, Kerrera Shore End Environmental Sensitivities Surrounding Mainland Kerrera

Environmental mapping Mainland – Kerrera (Kerrera landfall)

Figure 21 - Kerrera landfall - environmental sensitivities

Mainland Kerrera, Kerrera shore end is situated near Loch Sunart to the Sound of Jura MPA. This area has been designated as an MPA due to the presence of flame shell beds, northern feather star aggregations on mixed substrata and serpulid aggregations, flapper skate and quaternary features (geology and geomorphology). Flapper skate are present in this area in relatively high numbers which is especially important as they are considered critically endangered on the IUCN red list. Geology interests include several glaciated channels where mature common skate are resident. Studies in the area show that tagged skates were often recaptured in years later which shows strong evidence for limited home ranges for mature skates (Neat et al, 2014). Similarly, to cetaceans, flapper skate should not be present in close enough proximity to the remediation works to be impacted, especially as they typically inhabit deep glaciated channels. A study showed a preference for depths between 100-300 meters when near the coast (Pinto et al, 2016). Even when females lay their eggs during early spring and move to shallower water this depth range tends to be 25-50 meters (NatureScot, 2021).

In addition, there is a SAC by the name of Sunart which has flora and fauna qualifying interests to include: dry heaths, mixed woodland on base rich soils associated with rocky slopes, reefs and otters. The habitat types support a relatively high density of otters Otters tend to feed in the extensive wrack and help neds present in Loch Sunart where their prey can be found. Numerous streams feed into the area which is important for otters to wash which furthers the suitability of the site for otter populations. An ECoW will be carried out in this area plus additional surveying to establish otter presence in the area and any required mitigations required.

There are no seal haul out sites in the nearby vicinity. The works planned at this location are all above MHWS and no sensitive locations are predicted to be affected by these remedial works.

An ECoW site walkover will be conducted prior to any work commencing at these sites.



Environmental mapping Otter Ferry



Figure 22 - Otter Ferry environmental sensitivities

Site 103 Otter Ferry is within close proximity (70m) to the Upper Loch Fyne and Loch Goil MPA. This region has been designated as a result of burrowed mud, flame shell beds, horse mussel beds, ocean quahog aggregations, sublittoral mud and specific mixed sediment communities. A study found that six nest complexes in Loch Fyne supported 19 algae species and 256 invertebrate species. These features are considered to be sensitive to human activity (mainly mechanical disturbance during fishing activity), flame shell beds have experienced deterioration within the last decade. There is not expected to be any disturbance to these interests, although the shoreline remediation works are in close proximity, they are not within the MPA. There are no seal haul out sites in this area.

An ECoW site walkover will be conducted prior to any work commencing at these sites.



Environmental mapping Pentland Firth West (Murkle Bay)



Figure 23 - Environmental sensitivities - Pentland Firth West - Murkle Bay

SSEN 95 Pentland Firth West at Murkle Bay Shore End there is the SPA of North Caithness Cliffs around 2km away. This area has been designated as such due to important ornithology in the area to include breeding populations of fulmar (*Fulmarus glacialis*), guillemot (*Uria aalge*), kittiwake (*Rissa tridactyla*) and peregrine (*Falco perebrinus*). Peregrine and common guillemont are present numbers of European importance. North Caithness Cliffs also supports over 20,000 individual seabirds including razorbills (*Alca torda*) and Atlantic Puffins (*Fratecula arctica*). The nearest SSSI is over 4km away and would not be impacted by any shoreline remediation works. Additionally, according to Marine Scotland there are no seal haul out sites in nearby vicinity.

An ECoW site walkover will be conducted prior to any work commencing at these sites.



Environmental mapping Eday to Westray cable - Eday landfall



Figure 24 - Environmental sensitivities Eday

On the island of Eday there is a designated SSSI of Doomy and Whitemaw Hill. This site offers one of the only few places in Orkney where whimbrel nest (up to seven pairs counted). In addition, Artic skua use this site to nest during the summer where 36 pairs were found in 2002, approximately 1% of the British population. When a previous installation was being undertaken were nesting Sand Martins, approximately 15-20m close to the newly installed cable. Due to the nesting birds, work to remove the out of service cable were postponed. These works are now planned for September/October 2022. An ECoW site survey will be achieved to ensure that there are no nests within the local vicinity. Please also refer to GEMP for further breeding bird information.

The flora interest of this site is upland heath with large areas of blanket bog and sandy heath which provide the breeding areas suitable for whimbrel and artic skua. There should be safeguarding of nesting sites if any development in the area is to occur.

A SAC (Faray and Holm of Faray) has been designated due to the qualifying interest of grey seals. The SAC is approximately 2km from the site so any disruption to seal-haul out sites is very unlikely. Faray and Holm of Faray are uninhabited islands where the seals do not experience human interference. Seals inhabit the island from the start of September to the end of November for pupping and breeding. This site is an internationally important colony as around 3000 pups are born yearly which is approximately 9% of the British population. The colony at this site has been deemed to be maintained in favourable condition.

Site specific measures to manage the environment are described in Table 6, alongside other information to allow effective management of the environment. This live document will be updated to reflect any further advice given to BMC from WSP, pertaining to the best environmental management practice.

An ECoW site walkover will be conducted prior to any work commencing at these sites.

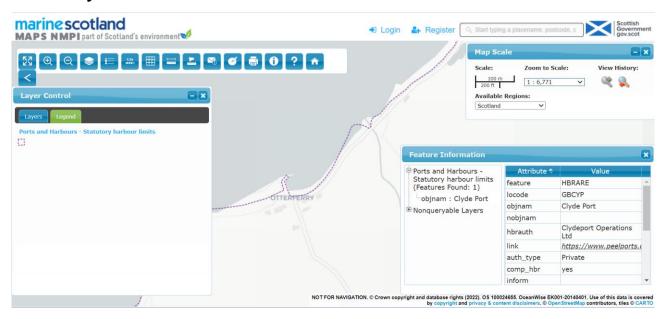
BMC will also work to any marine licence requirements that may be part of the marine licence application.



HARBOUR JURISDICTION

There are two locations which are within a statutory harbour limit, these are Otter Ferry and Mull-Calve Island. Please see figures below.

Otter ferry



Mull - calve island





Table 8-CEMP Requirements

Environmental Feature	CEMP Requirement	When Due	Responsibility	Date completed/ reviewed or checked	Comment / Ongoing actions required
All	An ECoW pre-construction walkover will take place in July 2022, to ensure that all environmental mitigation will be put in place throughout the construction period.	Pre- construction Construction	ECoW / BMC		
Terrestrial Ecology	All site personnel will attend a Tool Box Talk, as part of their site induction. The toolbox talk will include: - an outline of roles and responsibilities relating to any marine / terrestrial ecology within or adjacent to site; - a description of any key ecological features present, including photographs to help contractors recognise these; - any specific mitigation measures that need to be implemented on site, including any required protection zones around any discovered sensitive habitat; and - the procedure to follow if unexpected wildlife is encountered during the works.	Pre-Construction	ECoW BMC		
Terrestrial Ecology	Understand and implement all guidance and contained in the CB0226 -General Environmental Management Plan (GEMP), CB0226-3003 – Environmental RA for standard best practice methods.	Pre-Post Construction Construction	BMC ECoW SSEN		
Otters	A pre-construction ECoW site walkover will be undertaken a minimum of 10 weeks prior to planned works. If required, this CEMP will be updated to reflect any results from the pre-construction survey. If any otter licences are required, this will be applied for minimum 10 weeks before and planned works.	Construction	ECoW BMC		

Seals	There is a potential for both harbour seal and grey seal to be present in coastal areas in the vicinity of the works. No known seal haul outs are within the proposed working corridors.	Pre- Construction / Construction	вмс	
	A pre-construction ECoW walkover will be undertaken and daily checks of the beach areas for hauled out seals will be performed in the vicinity of the landfall points (prior to the commencement of works that day).			
	BMC personnel will be aware of the Scottish Government advice and responsible behaviour around seals:			
	http://www.gov.scot/Resource/0045/00452869.pdf			
	Pre-construction checks will be required if works are delayed and occur during seal pupping seasons (June/July for harbour seal and September-December for grey seal).			
Birds	The proposed working areas are not listed as a Special Protection Area (SPA).	Pre-	ECoW	
	An ECoW site survey will also be achieved a minimum of 10 weeks before work commences to ensure that there will be no presence of breeding birds.	Construction	вмс	
	If required, all mitigation will be adhered to, according to CB0226 – GEMP, Appendix A Special Protected Plan – Breeding Birds.			
Habitats	Desktop studies have shown no sensitive habitat adjacent to any of the proposed working sites.	Pre- Construction	ECoW	
			вмс	
Cultural heritage	Historic Environment Records do not indicate any archaeological features in the specified work areas; however it is worth noting that any unexpected encounters of archaeological remains along the pre-existing cable routes, should be reported immediately to BMC PM.	Pre- Construction	ECoW	
			вмс	
Marine Environment	All works will be completed in accordance with the Marine Licence.	Construction	ВМС	
			ECoW	

5. WATER QUALITY PROTECTION AND POLLUTION

5.1. Prevention

5.1.1. Introduction

The following sections describe measures to protect water quality and prevent pollution.

5.1.2. Drainage Management Strategy

The water environment could be potentially polluted during maintenance works, by virtue of:

• spillage of oils or other pollutants from machinery and vehicles.

5.1.3. Pollution Prevention

The pollution prevention of groundwater is to be prevented by adherence to the SEPA Guidance Pollution Prevention (GPP) series, (but also taking cognisance of the former Pollution Prevention Guideline (PPG) series). Please also refer to CB192-GEMP, section 1 - Watercourse Crossings and section 2— 'Working In or Near Watercourses' for best practice methods.

Training will be provided to on-site personnel via toolbox talks highlighting the risks of the polluting water environments during construction and highlighting sensitive locations.

Water quality monitoring by means of visual inspection will be undertaken, as a minimum, on a daily basis (and more frequently during periods of poor weather) of any areas considered at high risk during work activities. Temporary works areas will be sited at least 50m from the water environment including waterbodies where possible to reduce the potential for transmission of sediment laden run-off or accidental spillages.

5.1.4. Watercourse Crossing

Site investigations were carried out and it was noted that there were no watercourses that would need to be crossed during operations. If at any time access to site needs to be altered and the need to cross a watercourse arises, this will be undertaken in line with SEPA's General Binding Rule 9 (1), specifically the following requirement:

Following the operation of the machinery, any damage caused by the operation to the bed and banks of the surface water must be repaired, including re-establishing vegetation on any areas of bare earth on the banks resulting from the operation, either by covering the area with grass turfs or lining them with a biodegradable geotextile and seeding. https://www.sepa.org.uk/media/34761/car_a_practical_guide.pdf.

Please also refer to CB0226–1004 GEMP, section 2 - working in or near surface waters.

5.1.5. Water / Ground Contamination (from Spillage)

Potential pollution of the water environment and groundwater is to be prevented during works by adhering to the following measures:

- All fuel storage containers are to be labelled showing contents and maximum capacity.
- Plant nappies are to be used during refuelling operations.
- All works within 30 m of a water environment must be carried out following SEPA GPP guidance and following a site specific environmental briefing.
- Machine operators are to carry out daily inspections of plant, including hydraulic lines. This will be recorded on a mobile plant and lifting equipment inspection check sheet.
- Spill kits are to be readily available at all sites and with all items of mobile / static plant.
- All sites are to be kept tidy and clean. Materials and plant will be securely stored to avoid trespass and vandalism.
- All oil storage tanks, drums etc. Must be placed on level ground with 110% bund containment and inspected daily (where applicable).
- During maintenance work on plant, appropriate containers and drip trays are to be used to mitigate unavoidable spillage. Similar measures will also be used when re-fuelling.
- Any contamination of ground will be removed immediately, in such a manner that does not have the
 potential to cause further pollution to the surrounding environment. Contaminated spoil is to be treated
 as Hazardous (Special) Waste and will be appropriately disposed of by a licensed waste contractor.

All welfare facilities are to have an appropriate system for the treatment or removal of foul waste and provision made for the regular removal of waste products. Please also refer to CB0226-1004-GEMP, section 2 - working in or near surface waters

 SSEN: Western Isles Remedial
 Rev 5.0 – 17.03.2020

 CEMP
 CB0226-1002

5.1.6. Fuel storage

In the first instance please see CB0226-GEMP, Section 2 - working in or near surface waters, Section 5 – Contaminated Land and Section 7 – 'Oil Storage and Refuelling'.

No refuelling is to take place within 30 m of the water environment limiting any potential spillages from polluting the water environment.

Fuel storage will be at the main compound situated on impermeable ground.

Refuelling of plant and machinery will only take place within a defined area within site compounds. Clearly defined areas for storage of oil and refuelling will be identified as part of the compound establishment process.

Spill kits will be located and maintained at all oil storage and refuelling locations and in all site vehicles and plant.

5.1.7. Pollution Control

The fundamental measure of pollution control is to seek to stop the action which is causing pollution immediately, CB0226 – GEMP in sections, 2 - working in or near surface waters, 5 – Contaminated Land and 7 – 'Oil Storage and Refuelling' but additionally:

- take immediate remedial action block spill; place booms and absorbent materials to help soak up spill;
- ensure all plant is double bunded/double skinned/ appropriate drip trays in place to contain leakages; and
- have control measures in place and have fully stocked spill kits easily accessible.

5.1.8. COSHH Assessment

All substances identified as hazardous will be Control of Substances Hazardous to Health (COSHH) assessed and appropriate COSHH sheets for each individual material type retained on site and accessible to all works personnel. The use of non-assessed substances is prohibited. All operatives are required to comply with the controls specified within COSHH assessments. All COSHH items will be stored in a secure, ventilated store, separate from non COSHH items. All COSHH waste items will be discarded within a defined COSHH waste storage receptacle until being removed from site by a suitably licenced contractor (suitable for the removal of hazardous wastes).

COSHH assessments cover all range of materials and are not limited to construction associated items and will additionally be provided for any domestic cleaning materials used on site (e.g. bleach).

5.1.9. Welfare Facility

Welfare facilities on site will be sufficient to adequately accommodate all site personnel.

5.2. Air Quality

5.2.1. General Principals

Emissions to the atmosphere in terms of gaseous and particulate pollutants from vehicles and plant used on the site, will be controlled and limited as far as reasonably practicable.

5.2.2. Environmental Control Measures

The following control measures will be implemented to minimise the risks to air quality on and off site.

- vehicles, plant and equipment will be regularly serviced and inspected and any defects e.g. leaks or dark smoke, reported and removed from use or rectified immediately;
- records of plant and equipment maintenance/inspections will be available on site for inspection;
- engines will be turned off when not in use.

5.3 WORKING IN OR NEAR SURFACE WATERS

Construction activities in or near water have the potential to cause serious pollution or impact on the bed and banks of a watercourse and on the quality and quantity of the water. Most pollution incidents are avoidable. With careful planning the risk of site work causing pollution can be reduced. Many measures needed to prevent pollution are not expensive, especially if they are included at the planning stage of any activity. Major causes of environmental harm associated with working in or near watercourses include:

- silt e.g. disturbance of river bed or bank, dewatering and pumping of excavations, run-off from exposed ground, plant washing, roads and river crossings;
- · cement and concrete which is very alkaline and corrosive and can cause serious pollution;
- · chemicals and solvents oil storage, refuelling, trade materials etc;
- · bridge cleaning debris e.g. dust, debris & wastewater;
- · herbicides e.g. aerial application;
- · waste materials (including special waste) e.g. oily wastes, spent acids and solvents.

Most activities with the potential for affecting watercourses or groundwater will require an authorisation under The Water Environment (Controlled Activities) (Scotland) Regulations 2011 (CAR).

BMC is required to comply with the following:

5.3.1. General

- · Identify all activities that will be undertaken in or near watercourses (including all identifiable drainage paths);
- · Plan all works in accordance with best practice;
- · Avoid works within 10m of a watercourse unless no other practical options exist, and leave a vegetated buffer strip:
- · Where works are undertaken within 10m of any watercourse or drain, ensure specific pollution prevention controls are in place;
- Communicate risks associated with working in or near watercourses to all personnel and include control measures in the site specific construction method statements:
- · Seek to avoid or minimise watercourse engineering works wherever possible;
- · Ensure all necessary consents under the Controlled Activities Regulations (CAR) are in place;
- · Ask the environmental project manager for advice in planning works in and near watercourses;
- · Vehicles should not work within the water unless no other reasonable options exist;
- · All construction machinery operating in-stream should be mechanically sound to avoid leaks of oils, hydraulic fluid, etc;
- · Machinery should be steam cleaned and checked prior to commencement of in-stream works;
- · All reasonable steps shall be taken to prevent the transport of sediments or other matter disturbed by the works:
- · Keep site tidy and do not store materials too close to watercourses or surface water features;
- · Check if there are any timing restrictions to works because of protected species (e.g. spawning salmonids, otter, water vole, etc.) or landowner commitments;
- Ensure all required pre-construction surveys have been completed before starting works (these will include, where appropriate, FWPM, otter, water vole, etc.);
- · Any temporary dams used should be designed to accommodate periods of high watercourse discharge and dried out sections of bed should be check for stranded fish;
- · Where pumps are also used, back up pumps should be available. Pumps should also be fitted with screens to prevent fish mortalities and ingress of debris, and the outfall to pumps be designed to prevent erosion of the receiving waters (i.e. by dissipating the flow);
- Care should also be taken to avoid pollution of watercourses with sediment and to ensure that any desilting works would not interfere with the bank sides;
- · Vegetation removal should be minimised wherever possible;
- · Where stock has access to the works fencing may be necessary in order to allow the regeneration of native riparian and aquatic marginal vegetation;
- Ensure construction works minimise disturbance to the current run-off regimes.

5.3.2 Surface Water Control

- · Locate areas of high risk activities away from watercourses and drainage paths. Areas of high risk include:
- · fuel and chemical storage;
- · refuelling areas;
- · material stockpiles;
- · vehicle and equipment washing areas;
- · site compounds / parking areas.
- · Minimise the volume of contaminated run-off being created by:
- Diverting clean surface water away from areas using cut-off drains, catch pits and bunds (where necessary these can be lined):
- Do not allow water to drain down the length of a haul road. Roads should have adequate cambers to shed water quickly and if necessary cut-off drains installed across the road.
- · Minimise erosion of exposed soils and working areas;
- · Minimise the area of exposed working area through phased construction
- · Reinstate exposed soil as soon as practical;
- · Roughen exposed surface:
- · Prevent water from leaving site prior to treatment;
- · Ensure adequate buffer zones are identified between working areas and surface waters;
- Diversion drains should be used to catch sediment laden run-off and direct it to treatment facilities (where necessary these can be lined);
- Catch dirty run-off and treat through silt fences, silt traps, bunds, settlement tanks / lagoons, straw bales and geotextile etc. (see CIRIA C648);
- · Maintain all protective measures (e.g. change bales once sediment laden etc);
- Depending on the level of contamination, silty water can be pumped over land to filter through vegetation and infiltrate into the ground provided it is carried out in line with the CAR regulations.

An appropriate buffer distance must be agreed with the Employer to allow sufficient distance for the vegetation to filter the silty water prior to reaching a watercourse.

5.4 WASTE MANAGEMENT

Waste is defined as "any substance or object which the holder discards, intends to discard or is required to discard". This includes materials that other people want, or for which they can find a beneficial use i.e. material that is to be recovered / recycled. In any construction project, there may be a variety of different wastes, from office and canteen waste to construction materials, waste oils, asbestos and clinical waste that will require management.

BMC is required to compile a site waste management plan in accordance with the principles below: Principles of waste management

Waste management priorities and practical actions that can be undertaken on site should follow the principles of the waste hierarchy as illustrated below:

Eliminate>>>>> Design out waste

Reduce >>>>>> Minimise waste generation

Reuse>>>>>> Reuse materials on site if possible

Recycle >>>>>> Reprocess materials for off-site use

Recover >>>>>> Recovery of energy from waste sent off site

Dispose>>>>>> Least desirable option – last resort

6. NOISE AND VIBRATION

6.1. General Principals

There is limited potential for noise impacts. Noise from maintenance works will be minimised using Best Practicable Means, as defined under Section 72, Part III of the Control of Pollution Act (CoPA) 1974. BS 5228 provides guidance on controlling noise from work sites in Clause 8, which will be followed where appropriate and practicable.

Measures will be adopted on both Sites to reduce noise of equipment and the work including those listed below. Please refer to CB0226 – 1004 – GEMP, section 14 noise and vibration.

7. EMERGENCY PROCEDURES

7.1. Introduction

Please refer to CB0226 – 1004 – GEMP, section 14, for procedures to be followed in the event of an environmental incident or pollution event.

7.2. Incident Reporting

In the event of a pollution event or environmental incident on site an Incident Report Form will be submitted to the SSEN Project Manager and SHE representative as specified in Table 2.1.

In the event pollution enters a surface water drainage channel SEPA must be informed. Should pollution enter surface water or foul water drainage channels Scottish Water and local council's must also be informed. Should an environmental incident or pollution event take place at the shore end location of the works that discharges to the littoral and tidal area, or to sea, this will be reported to SSEN immediately and SEPA subsequently contacted for direction.

8. BREEDING BIRD PROTECTION

Construction works have the potential to negatively impact on breeding birds as a result of either direct destruction of nests or disturbance which may result in breeding failure. In addition, some particularly sensitive species are liable to disturbance outwith the breeding season.

In the first instance please refer to CB0226-GEMP, Appendix A Species Protection Plan. Whereby it outlines the procedures that must be followed where there is a potential for breeding birds to be affected. It explains the responsibilities of SSEN, BMC and its Contractors, the legislative protection for birds, and the measures required to minimise impacts on birds and thereby the risk of criminal offences being committed.

Desktop studies have shown that none of the proposed locations are situated in or adjacent to a Special Protected Area (SPA). However, before work commences, BMC has employed an ECoW to undertake a site walkover in July 2022.

It is BMC's responsibility to comply with all the requirements of this plan and it is both BMC's and SSEN's responsibility to monitor compliance with the plan.

9. OTTER PROTECTION

Otter is a European Protected Species and is afforded a high level of protection in Scotland.

After an ECoW pre-construction has been achieved, any Otter mitigation will be contained within CB0226-3003 Environmental RA and this live CMEP will be updated.

Please also refer to CB0226-GEMP, Appendix B, for general guidance for the protection of otters and their shelters during construction works. The Plan contains two parts and details the procedures that must be followed where there is potential for otter to be present (Part 1), and where a Project Licence for otter has been issued by NatureScot to cover the project (Part 2):

10. REINSTATEMENT

BMC shall reinstate all working areas as a result of the works or access across land to the reasonable satisfaction of the landowner/occupier and SSEN

11. BAD WEATHER

It is important to consider the implications of poor weather conditions and associated environmental risks. Bad weather, particularly heavy rain, can cause significant environmental impacts during construction (for example, on sensitive habitats and increased risk of sediment laden run-off into surface waters).

BMC is required to comply with the following:

- · Identify an action plan before construction starts with a protocol of measures to implement in times of bad weather. This should include heavy rain, high winds, snow and frost;
- The weather forecast should be checked on a daily basis and thought should be given to possible sudden changes:
- Ground conditions should be checked regularly and assessment made as to whether they are suitable for the proposed site activities:
- · Check whether plant is causing unacceptably high damage on site because of poor ground conditions (involve the ECOW)
- · Consider whether plant could be at risk if used in areas which are too wet;
- · Plan for high run-off in advance and Identify protection measures (silt traps, straw bales and booms etc);
- Check for any materials stored close to watercourses during construction activities which could be washed into the water in times of storm;
- · During times of excessive rainfall and ground saturation, stripping and reinstatement works should not be undertaken.

12. BIOSECURITY

When working/crossing farmland or working near livestock, all personnel to ensure that boots / wheels of vehicles have been brushed with the bio security product (DEFRA approved disinfectant FAM-30) that will be available to all personnel on each site.

APPENDIX 1 – Correspondence and commitments register

From	Comment	Addressed?