

**A83 North of Inveraray Sea Wall
F114 Site Environmental Management Plan
December 2024**



experience that delivers



A83 North of Inveraray Sea Wall	
Document:	Form #114 Site Environmental Management Plan
Issue:	#5
Related to:	All Contracts



Document Control Sheet

Report Title	A83 North of Inveraray Sea Wall Site Environmental Management Plan
Author	Mark Laurie
Revision	1.0
Status	Issue
Date	19/12/2024
Scheme Reference	22-NW-0309-5
Scheme Element	E-24-NW-01190-E
Design Team	Minor Improvements
Scheme Designer	Jake Bovill

Document Approvals

	Name	Organisation	Signature	Date
Prepared By	Mark Laurie	BEAR Scotland	ML	16/12/2024
Authorised By	Lara Currie	BEAR Scotland	LC	18/12/2024

Revision Status

Revision No.	Date	Revision Details	Authorised By
1.0	04/11/2024	Draft Issue	Cian McGlinchey
1.1	18/12/2024	First Issue	Lara Currie

Document Distribution

Reference	Name of Holder
1	Jake Bovill (BEAR Scotland)
2	
3	

A83 North of Inveraray Sea Wall

Document:	Form #114 Site Environmental Management Plan
Issue:	#5
Related to:	All Contracts



Table of Contents

1. Overview4

2. Objectives and Responsibilities4

3. Environmental Incidents and Design Changes4

 3.1. Environmental Incidents4

 3.2. Design and Methodology Changes During Construction5

4. Scheme Details5

 4.1. Site Location5

 4.2. Project Brief.....7

 4.3. Baseline Receptors7

5. Mitigation Requirements.....8

 5.1. Air Quality8

 5.2. Cultural Heritage8

 5.3. Landscape and Visual Effects8

 5.4. Biodiversity.....9

 5.5. Material Assets and Wastes10

 5.6. Geology and Soils10

 5.7. Noise and Vibration11

 5.8. Population and Human Health.....11

 5.9. Road Drainage and the Water Environment11

 5.10. Climate.....13

6. Register of Personnel Receiving SEMP Toolbox Talk14

7. Toolbox Talks15

Appendix A – Marine Licence (MS-00010838).....16



A83 North of Inveraray Sea Wall

Document:	Form #114 Site Environmental Management Plan
Issue:	#5
Related to:	All Contracts



1. Overview

Validity Period of SEMP	SEMPs are valid for a period of one year from the authorisation date, unless otherwise stated. This SEMP is valid until 19/12/2025.
Seasonal Constraints	N/A
Licences / Consents	Marine Licence MS-00010838 has been issued by Marine Directorate to permit works at this site from 12th December 2024 to 21st March 2025. All conditions of this licence must be followed throughout the duration of works. Any works required beyond this date will require an extension to be approved by Marine Directorate. Refer to Appendix A.
Survey Requirements	Pre-construction otter check required prior to works beginning, due to signs of otter in the area during previous surveys. An Environmental Clerk of Works will be required to be on site during some of the works, including the first day of works. This visit will inform if further ECoW visits are required.

2. Objectives and Responsibilities

The objective of this Site Environmental Management Plan (SEMP) is to set out the responsibilities of site staff and to provide a complete list of mitigation and working methods required to safeguard the local environment and meet compliance with environmental legislation. It should act as a benchmark for best practice and covers all phases of scheme construction, including mobilisation and demobilisation.

The SEMP must be included in the Construction Phase Plan (CPP), be uploaded into the Asset Management Performance System (AMPS)¹ and be present within the site file. The SEMP is to be used as a Toolbox Talk for all site personnel during the induction process and must be signed by individuals to confirm they understand its contents and their responsibilities.

The contents of this SEMP must be fully understood prior to any works commencing onsite, with the scheme designer and contractor having fully read and understood all of its contents. If at any point it is identified that anything contained within this SEMP cannot be adhered to, then it must be raised immediately with BEAR Scotland's Environmental Team.

North West Environment Team Contact:

NWEnvironment@BEARScotland.co.uk

South East Environment Team (including DBFOs) Contact:

SEEnvironment@BEARScotland.co.uk

3. Environmental Incidents and Design Changes

3.1. Environmental Incidents

In the event of any environmental incident occurring onsite, appropriate measures should be taken immediately to contain / limit the incident. As early as possible, the site supervisor should initiate BEAR Scotland's incident reporting process and notify BEAR Scotland's Environmental Team (see above contact information).

In the event where an environmental incident has resulted in pollution to the natural environment, a report to SEPA should also be initiated. If site staff are unclear if pollution has occurred, they should seek appropriate advice from BEAR Scotland's Environmental Team.

SEPA's Pollution Hotline:

0800 80 70 60 / www2.sepa.org.uk/environmentalevents

¹ AMPS is only used on the Network Maintenance Contracts. The DBFO contracts are to appropriately file the SEMP in line with contractual requirements.

A83 North of Inveraray Sea Wall

Document:	Form #114 Site Environmental Management Plan
Issue:	#5
Related to:	All Contracts



3.2. Design and Methodology Changes During Construction

If at any point throughout the construction of this scheme a change is required to the design / planned construction methodologies / site access arrangements, immediate contact should be made with BEAR Scotland's Environmental Team (see above contact information) to determine if any additional environmental input will be required.

4. Scheme Details

4.1. Site Location

The scheme is located at the A83 approximately 1km north of Inveraray, at the sea wall of Loch Fyne. The site location has the following National Grid Reference (NGR): Start (NN 10357 09585), End: (NN 10216 09428).

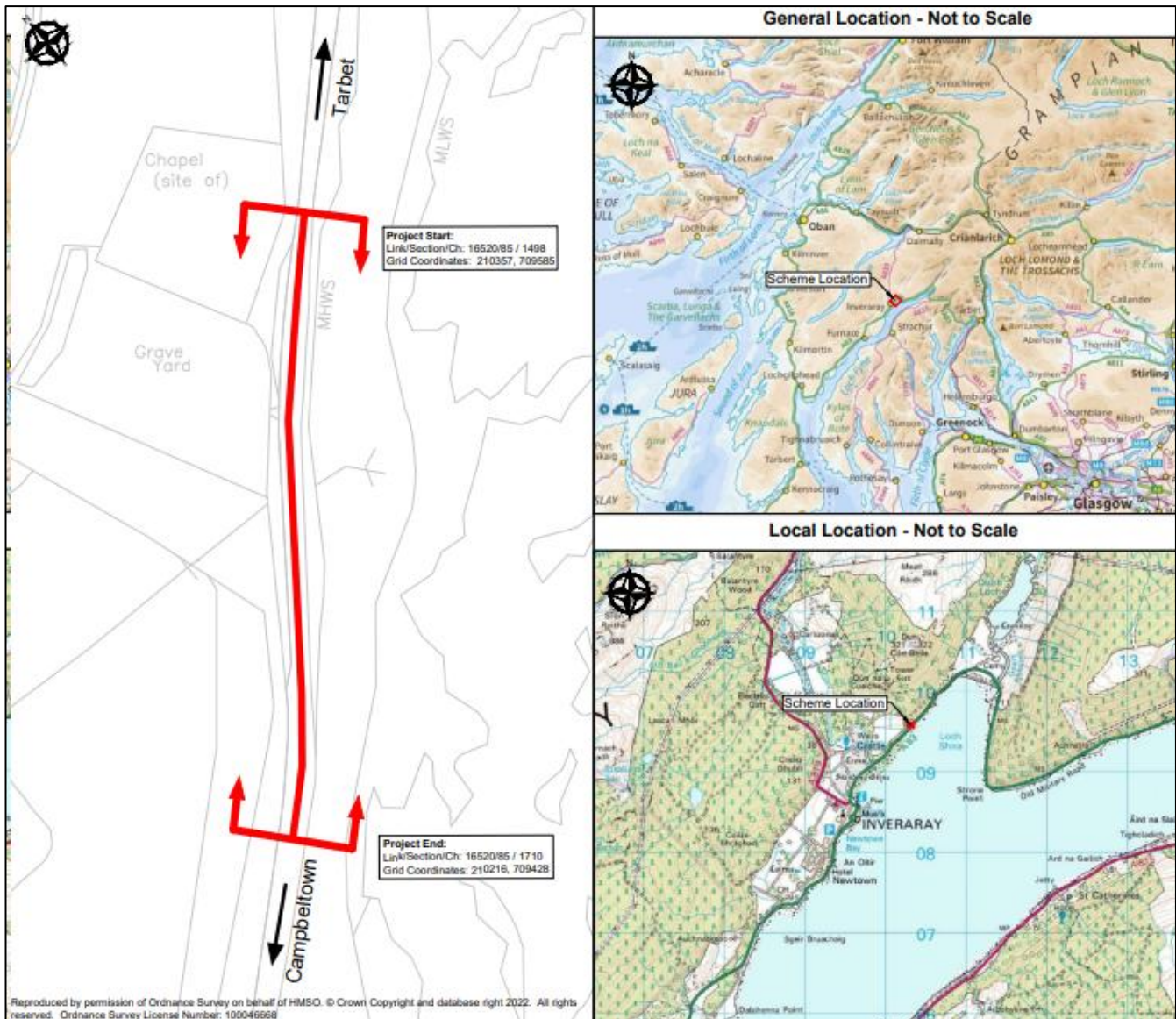


Figure 1- Site map and area overview.

A83 North of Inveraray Sea Wall

Document:	Form #114 Site Environmental Management Plan
Issue:	#5
Related to:	All Contracts

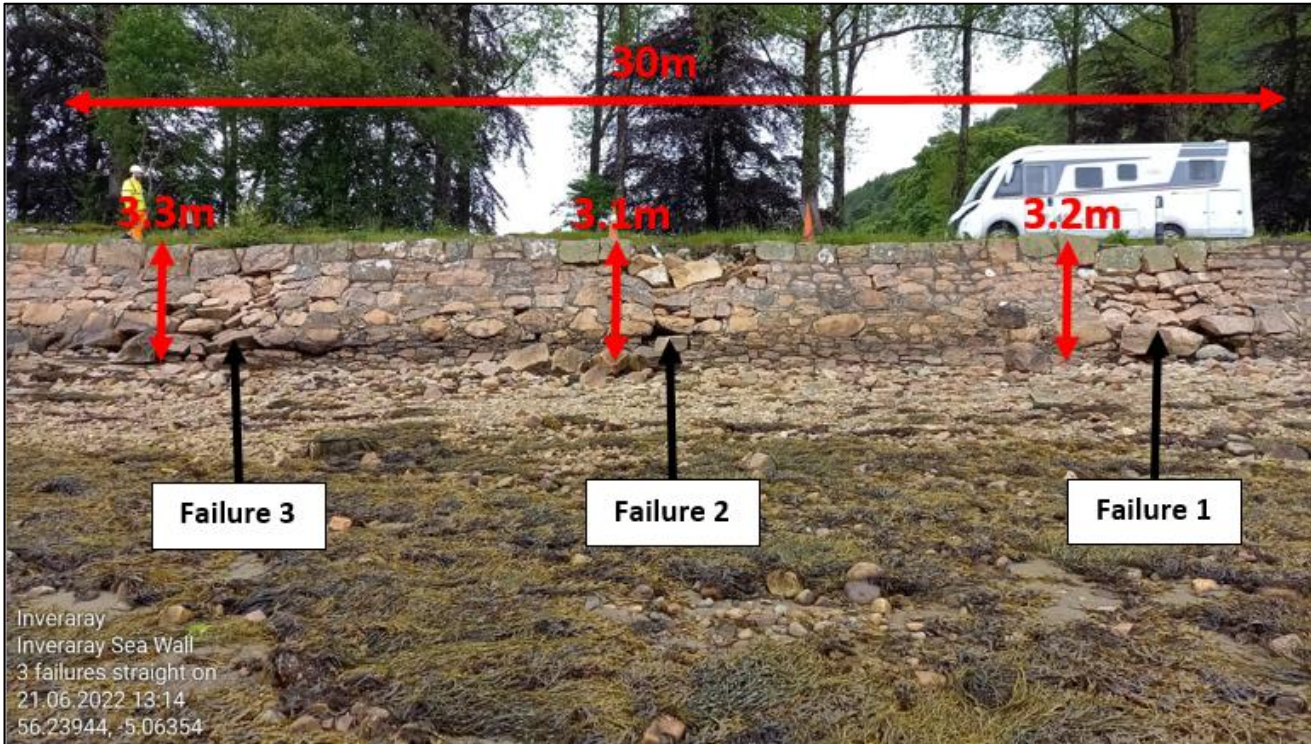


Figure 2- Sea wall failures over 30m stretch at site.

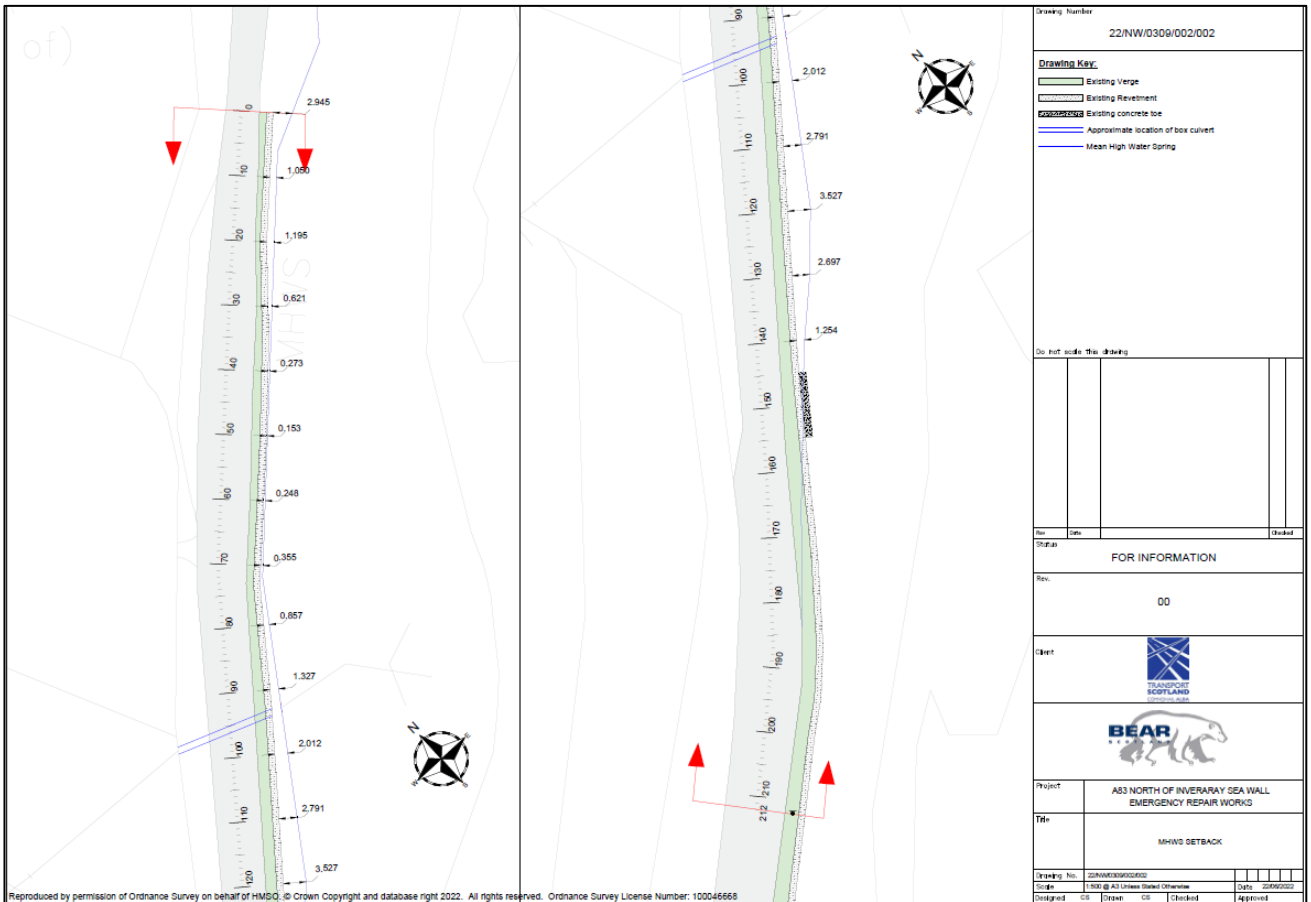


Figure 3- Scheme design drawings.



A83 North of Inveraray Sea Wall

Document:	Form #114 Site Environmental Management Plan
Issue:	#5
Related to:	All Contracts



4.2. Project Brief

- 4.2.1. The sea wall at this site has suffered damage and failures over time, specifically a 30m stretch of sea wall which has three areas of failure due to washout (see Figure 2). The proposed works aim to restore the revetment to a structurally sound, safe condition and enhance the revetment's resilience against marine forces and potential future issues. This work would take place in three stages: 'demolition phase', 'foundation phase', and the 'stone and mortar phase'.
- 4.2.2. The works are due to begin in late January 2025 expected to last around 2 weeks of daylight working hours (depending on water levels). Traffic management (TM) for this scheme will consist of a 2-way temporary traffic light system surrounding the area of works.

4.3. Baseline Receptors

- 4.3.1. Vehicular travellers and non-motorised users (NMUs) that may use the A83 carriageway and any connected local roads.
- 4.3.2. 'Inveraray Castle', Garden & Designed Landscapes (GDL), which the scheme lies entirely within.
- 4.3.3. The Upper Loch Fyne and Loch Goil Nature Conservation Marine Protected Area (NC MPA) lies adjacent to scheme extents (Figure 2). The NC MPA is designated for the following marine features: burrowed mud, flame shell beds, horse mussel beds, ocean quahog aggregations (*Arctica islandica*), and sublittoral mud and specific mixed sediment communities.

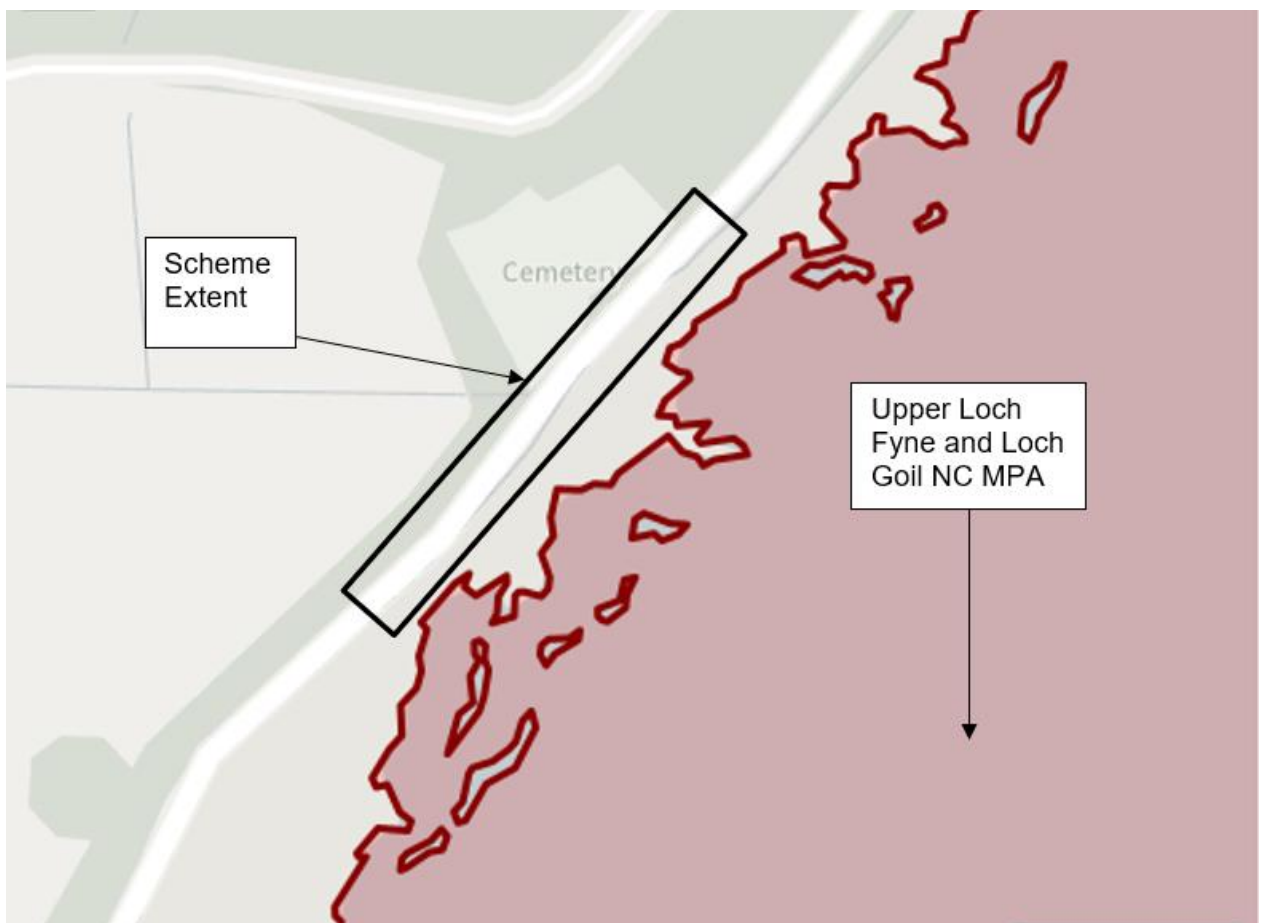


Figure 4- Location of Upper Loch Fyne and Loch Goil NC MPA (red polygon) in relation to scheme extent (black box).

- 4.3.4. Populations of any protected species that may be present within the scheme extent, including otter (*Lutra lutra*).

A83 North of Inveraray Sea Wall

Document:	Form #114 Site Environmental Management Plan
Issue:	#5
Related to:	All Contracts



- 4.3.5. Invasive and/or injurious plants (as listed in the NMC contract), which may be located in proximity to scheme extents.
- 4.3.6. The invasive non-native species (INNS) carpet sea squirt (*Didemnum vexillum*), a marine invertebrate animal that is known to be present within Loch Fyne and may be present within the in-water working areas.
- 4.3.7. Loch Fyne coastal water body, which is located adjacent to the sea wall.
- 4.3.8. The Oban and Kintyre groundwater body, which underlies the riverbanks surrounding the scheme extent.

5. Mitigation Requirements

5.1. Air Quality

- 5.1.1. Where possible, construction operatives must be encouraged to car-share, use organised company transport or public transport to reduce greenhouse gas emissions.
- 5.1.2. Cutting, grinding, and sawing equipment must be fitted or used in conjunction with suitable dust suppression techniques e.g., water spray or local exhaust ventilation system that fits directly onto tools.
- 5.1.3. All plant, machinery and vehicles associated with the scheme must be maintained to the appropriate standards and must switch their engines off when not in use.
- 5.1.4. Materials should be removed from site as soon as is practical.
- 5.1.5. Good housekeeping should be employed throughout the works.

5.2. Cultural Heritage

- 5.2.1. People, plant, and materials must, as far as is reasonably practicable, only be present on areas of made / engineered ground (i.e. A83 carriageway). Where access outwith these areas is required for the safe and effective completion of the scheme, it must be reduced as much as is reasonably practicable and ideally be limited to access on foot.
- 5.2.2. No tree felling or trimming is permitted during works, as works lie within the Inveraray Castle GDL
- 5.2.3. There must be no storage of vehicles, plant, or materials against any buildings, walls or fences.
- 5.2.4. All site personal are to be briefed on the importance of archaeological finds and are instructed, as part of the site induction, to inform the site supervisor where potential finds are made.
- 5.2.5. Should any unexpected archaeological evidence be discovered by the works, construction activities in the vicinity should be halted and the BEAR Scotland NW Environmental Team should be contacted.

5.3. Landscape and Visual Effects

- 5.3.1. Throughout all stages of the works, the site must be kept clean and tidy, with materials, equipment, plant and wastes appropriately stored, reducing the landscape and visual effects as much as possible.
- 5.3.2. Where applicable, upon completion of the works, any damage to the local landscape (i.e., damage to the verge of the A83) must be reinstated as much as is practicable.
- 5.3.3. Works must avoid encroaching on land and areas where work is not required or does not have permission to do so. This includes general works, storage of equipment/containers and parking.
- 5.3.4. The site must be left clean and tidy following works.
- 5.3.5. Mitigation detailed in Section 5.5: Waste and Material Use and Re-use must be strictly adhered to.

A83 North of Inveraray Sea Wall

Document:	Form #114 Site Environmental Management Plan
Issue:	#5
Related to:	All Contracts



5.4. Biodiversity

- 5.4.1. An ECoW will be required during works to ensure that the conditions of the marine licence are being followed and that no otter are present on site. ECoW will be present on site during first day of works, which will inform the need for any further visits.
- 5.4.2. In the event otter are recorded, works must not commence until appropriate mitigation and/or consent is in place. Consultation may be required with NatureScot.
- 5.4.3. Works must be strictly limited to areas required for access and works. Unnecessary encroachment onto terrestrial or aquatic areas must not be tolerated.
- 5.4.4. No in-water works are permitted and no discharges into any watercourses or drainage systems are permitted.
- 5.4.5. The Upper Loch Fyne and Loch Goil NC MPA is located immediately downstream of the working area and care must be taken to limit erosion or movement of sediment from the working areas. Refer to Section 5.0: Road Drainage and the Water Environment for additional measures.
- 5.4.6. No tree felling or trimming is permitted during works.
- 5.4.7. Measures to be implemented to protect the aquatic environment are detailed in Section 5.9: Road Drainage and Water Environment.
- 5.4.8. Site personnel should remain vigilant for the presence of protected species (including, but not limited to, otter and nesting birds) over the works period.
- 5.4.9. Site personnel are instructed not to approach or touch any animals seen on site.
- 5.4.10. All construction operatives are to be briefed through toolbox talks prior to works commencing using the toolbox talk templates for **otter** and **INNS** (as listed in **Section 7**). The talks are to specifically cover ecology and field signs of protected species, identification and biosecurity of INNS, and legislation. Briefings are to be clear and unambiguous, with all staff informed to stop works where a concern is raised. Works may not commence until advice from an appropriately qualified ecologist is sought and appropriate mitigation is in place, where required.
- 5.4.11. If the INNS carpet sea squirt is identified within in-water working areas, activities should be carried out to avoid detaching or mobilising any part of the carpet sea squirt colony as far as is reasonably practicable. Refer to the **Carpet Sea Squirt toolbox talk** (as listed in **Section 7**).
- 5.4.12. If an active bird nest (e.g. eggs or young present, adult sitting on nest) is identified in the vicinity of works, all works within 30m of the nest must stop until the BEAR Scotland NW Environment Team and/or ECoW can provide advice.
- 5.4.13. Where protected mammals are encountered or move within 50m of the active works, works must cease until the animal(s) move further away than 50m from the construction site or until the BEAR Scotland NW Environment Team and/or ECoW can provide advice.
- 5.4.14. All material, machinery and equipment should be subject to checks for resting mammals daily prior to any works commencing to prevent entrapment or injury of any mammals.
- 5.4.15. A 'soft start' should be implemented on site each day, where any plant/vehicles are left overnight. This must involve switching on vehicles and checking under/around vehicles and the immediate works area for mammals prior to works commencing to ensure none are present and that there is a gradual increase in noise.

A83 North of Inveraray Sea Wall

Document:	Form #114 Site Environmental Management Plan
Issue:	#5
Related to:	All Contracts



- 5.4.16. Any excavations, exposed pipes/drains, or areas where an animal could become trapped (e.g. storage containers) should be covered over when not in use, at the end of each shift, and following completion of the works to avoid animals falling in and becoming trapped.
- 5.4.17. If fencing is utilised at any point during the works, a gap of 200mm from ground level must be provided, allowing free passage for mammals and preventing entrapment.
- 5.4.18. All access routes and works areas should be appropriately designed to minimise their area of disturbance, as much as is practicable to allow the safe and effective undertaking of the project.
- 5.4.19. It is not expected INNS (particularly Japanese knotweed) will be encountered on access routes or within working areas; however, it is known to be present on the shoreline around Inveraray. As such, the ECoW will advise site staff of nearby INNS and any required biosecurity measures (e.g., boot washing) as necessary.

5.5. Material Assets and Wastes

- 5.5.1. The waste hierarchy (Reduce, Reuse, Recycle and Dispose) must be employed throughout the construction works.
- 5.5.2. Materials, wastes, plant and equipment must not be stored on the shoreline.
- 5.5.3. All wastes and unused materials must be removed from site in a safe manner by a licensed waste carrier upon completion of the works. The appointed waste carrier must have a valid SEPA waste carrier registration, a copy of which must be retained by BEAR Scotland. A copy of the waste transfer is also to be provided to BEAR Scotland as early as practicably feasible and retained.
- 5.5.4. During the site induction, all staff are to be informed that littering must not be tolerated. Staff are also encouraged to collect any litter seen on site.
- 5.5.5. Where applicable, all temporary signage must be removed from site on completion of the works.
- 5.5.6. All hazardous material must be stored in line with Section 5.9: Road Drainage & Water Environment.
- 5.5.7. A copy of the duty of care paperwork must be provided and filed appropriately in accordance with the Code of Practice (as made under Section 34 of Environmental Protection Act 1990 as amended).
- 5.5.8. Any contaminated ground as a result of the works must be removed and transferred off site as special waste.
- 5.5.9. All hazardous material utilised on site is required to undergo assessment under the Control of Substances Hazardous to Health (COSHH) Regulations 2002. These assessment(s) must contain a section on environment which highlights any precautions and mitigation requirements.
- 5.5.10. Any COSHH waste and special waste must be removed from site by a specialised waste carrier. COSHH waste should NOT be mixed with general waste and/or other recyclables.
- 5.5.11. Any waste generated must be removed from site and either recycled or disposed.

5.6. Geology and Soils

- 5.6.1. The parking of machinery/personnel and storage of equipment on verges must be minimised as far as reasonably practicable.
- 5.6.2. Personnel presence on soft land/verges must be minimised as far as is reasonably practicable.
- 5.6.3. Upon completion of the works, any damage to the local landscape (i.e. damage to grass verges) must be reinstated as much as is practicable.

A83 North of Inveraray Sea Wall

Document:	Form #114 Site Environmental Management Plan
Issue:	#5
Related to:	All Contracts



- 5.6.4. Mitigation measures to prevent contamination of soils through loss of containment are discussed in Section 5.9: Road Drainage & Water Environment must be strictly adhered to.

5.7. Noise and Vibration

- 5.7.1. The best practice means, as defined in Section 72 of the Control of Pollution Act 1974 and BS5228-1:2009+A1:2014 Code of Practice for Noise and Vibration Control on Construction and Open Sites will always be employed to reduce noise to a minimum.
- 5.7.2. All site personnel will be fully briefed in advance of works regarding the need to minimise noise during works and of the site-specific sensitivities.
- 5.7.3. Where applicable, local residents and businesses must be kept informed of the proposed working schedule, particularly the times and durations of noisy construction activities, and must be provided with a 24-hour contact number for the BEAR Scotland Control Room.
- 5.7.4. Plant, machinery and equipment must be fitted with effective silencers where possible. Where fitted, and where permitted under Health and Safety requirements, white noise reversing alarms must be utilised during construction.
- 5.7.5. Where possible, inherently quiet plant must be selected for construction works.
- 5.7.6. All plant, machinery, and vehicles must be switched off when not in use.
- 5.7.7. All plant must be operated in such a way that reduces noise emissions and must be maintained regularly to the appropriate standards.
- 5.7.8. Where ancillary plant such as generators are required, they must be positioned so as to cause minimum noise disturbance. Where deemed necessary, acoustic screens must be utilised.

5.8. Population and Human Health

- 5.8.1. Appropriate provisions / measures must be implemented at / around the area of works to allow the safe passage of NMUs through the site.
- 5.8.2. In the event of the local road closure/restriction, this should be advertised locally in advance. Pedestrian Management plan (where required) must be in place and clearly signed.
- 5.8.3. Access to residential properties must be maintained during the works. Operatives should grant local access in the event of obstruction.
- 5.8.4. Journey planning information must be available for drivers online at the trafficscotland.org website. Journey planning information must also be available for drivers online through BEAR Scotland's social media platforms.

5.9. Road Drainage and the Water Environment

- 5.9.1. In-water works will take place below the level of MHWS and are therefore subject to authorisation by the Marine Directorate. **Marine Licence MS-00010838** has been issued by Marine Directorate to permit these sea wall repair works (**Appendix A**). All conditions of the Licence must be adhered to during works. A full copy of this licence must be printed and stored in site pack.
- 5.9.2. A copy of the Marine Licence Exemption must be retained on site, at the premises of BEAR Scotland, and at the premises of any contractor or subcontractor employed to carry out the exempt activity and must be made available for inspection as required.
- 5.9.3. No storage of plant or equipment below the MHWS (below the high-tide line) is permitted.

A83 North of Inveraray Sea Wall

Document:	Form #114 Site Environmental Management Plan
Issue:	#5
Related to:	All Contracts



- 5.9.4.** All plant and equipment must be regularly inspected for any signs of damage and leaks. A checklist must be present to make sure that the checks have been carried out.
- 5.9.5.** No discharges into any watercourses or drainage systems are permitted and appropriate containment measures must be in place to prevent any loss of construction materials into the water environment.
- 5.9.6.** Concrete batching must be undertaken on an impermeable surface at least 10m away from watercourses.
- 5.9.7.** Any concrete wash-out must be contained and removed off-site for appropriate treatment/disposal. Disposal of wash water into waterbodies or road drainage is not permitted.
- 5.9.8.** Pollution prevention measures will be in place to manage concrete (including any wash water), and prevent escape to the watercourse.
- 5.9.9.** The designated storage area must be on impermeable ground and fully bunded.
- 5.9.10.** All hazardous material must be stored in line with COSHH data within a designated COSHH storage area at least 10m from watercourses, drains, and waterbodies. Oils and chemicals should be stored in appropriately bunded storage cabinets. The COSHH store should be locked with only appropriate personnel having access and an inventory register being maintained.
- 5.9.11.** Where applicable and practicable, bio-degradable hydraulic fluids and oils should be utilised in machinery.
- 5.9.12.** Where fuel is stored on site and refuelling activities are undertaken, the following should apply:
- Only suitably double-skinned fuel bowser(s) or tank(s) in line with General Binding Rules the Water Environment (Controlled Activities) (Scotland) Regulations 2011 (as amended) must be utilised on site;
 - The fuel bowser(s) and/or tank(s) must be stored away at least 10m from any watercourses, waterbodies or drains and away from being struck by plant and machinery;
 - All distribution and fuelling nozzles must be fitted with a shut-off valve;
 - All refuelling activities are to be undertaken in a designated site with a drip tray positioned underneath the nozzles when not in use;
 - All fuel containers and nozzles are to be secured, for example with a lock when not in use; and
 - All staff undertaking refuelling activities are to be appropriately trained and undertake these activities in line with site refuelling procedures.
- 5.9.13.** During refuelling of smaller mobile plant, a funnel and drip trays must be used.
- 5.9.14.** A spillage control procedure must be in place in which all staff are to be trained.
- 5.9.15.** Suitable spill kits are to be available on site with all staff to be trained in their use. Spill kits must be quickly accessible to capture any spills should they occur.
- 5.9.16.** The ground / stone around the site of a spill must be removed, double-bagged and taken off site as special contaminated waste.
- 5.9.17.** All spills must be logged and reported. In the event of any spills into the water environment, all works must stop, and the incident reported to the project manager and the BEAR Scotland NW Environment Team. SEPA must be informed of any such incident as soon as possible using the SEPA Pollution Hotline.

A83 North of Inveraray Sea Wall	
Document:	Form #114 Site Environmental Management Plan
Issue:	#5
Related to:	All Contracts



- 5.9.18. Generators and static plant may have the potential to leak fuel and/or other hydrocarbons and should have internal bunding where possible. A secondary containment system should also be in place during use to catch leaks or spills. For example, plant nappies or drip trays with a capacity of 110% should be placed beneath the equipment.
- 5.9.19. Operatives must conduct regular checks of the surrounding ground/drains for any spillages/leakage regularly, especially in periods of heavy wind and rainfall.
- 5.9.20. Mitigation detailed in Section 5.4: Biodiversity must be adhered to.

5.10. Climate

- 5.10.1. Works must adhere to the BEAR Scotland’s Carbon Management Policy.
- 5.10.2. The requirement for additional lighting must be reduced as far as reasonably practicable.
- 5.10.3. Local contractors and suppliers must be used as far as practicable to reduce fuel use and greenhouse gas emitted as part of the works.
- 5.10.4. Where possible, materials must be sourced locally to reduce greenhouse gas emissions associated with material movement, and waste will be disposed at local landfill.

A83 North of Inveraray Sea Wall

Document:	Form #114 Site Environmental Management Plan
Issue:	#5
Related to:	All Contracts



6. Register of Personnel Receiving SEMP Toolbox Talk

Name	Company	Signature	Date



A83 North of Inveraray Sea Wall

Document:	Form #114 Site Environmental Management Plan
Issue:	#5
Related to:	All Contracts



7. Toolbox Talks

The following Toolbox Talks, which are attached separately to this report (via document submission email) should be briefed to all staff prior to the commencement of works:

- TTN-011: Working with Otter
- TTN-009: Working with Injurious Weeds & Invasive Plants
- TTN-???: Carpet Sea Squirt
- TTN-012: Water Pollution – Silt

A83 North of Inveraray Sea Wall

Document:	Form #114 Site Environmental Management Plan
Issue:	#5
Related to:	All Contracts



Appendix A – Marine Licence (MS-00010838)

Copy of full licence must also be printed and stored in site pack.



MARINE (SCOTLAND) ACT 2010, PART 4 MARINE LICENSING

LICENCE TO CONSTRUCT, ALTER OR IMPROVE WORKS IN THE SCOTTISH MARINE AREA

Licence Number: **MS-00010838**

The Scottish Ministers (hereinafter referred to as "the Licensing Authority") hereby grant a marine licence authorising:

**BEAR Scotland Ltd
Bear House
Inveralmond Industrial Estate
Inveralmond Road
Perth
PH1 3TW**

to construct, alter or improve works as described in Part 2. The licence is subject to the conditions set out, or referred to, in Part 3.

The licence is valid from **12 December, 2024** until **21 March, 2025**

[Redacted]

Signed:

Gerry Millar

For and on behalf of the Licensing Authority

Date of issue: 11 December, 2024