

Environmental Scoping Assessment

**St Fillan's Parapet Replacement Scheme & Soffit
Repairs**

22-SW-1201-27 / 001 / Rev 1

23/06/2026

Document Control Sheet

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Environmental Review Summary

Key Environmental Constraints

- The scheme is located on the A78 along the west coast just north of Largs, surrounded by trees and shrubs and the Firth of Clyde located to the west. There is one residential property (St Phillans Lodge) located approximately 23m southeast of the works. There are no further noise non-residential sensitive receptors located within 300m of the scheme.
- The works are located directly above the Mean High-Water Springs (MHWS) level, which is the typical height reached by the highest tides during spring conditions. Because the site sits above this level, it is considered to be within a coastal area where tides, waves and salty sea air may influence the structure and the way construction activities are carried out.
- Firth of Clyde Inner - Cumbræes (ID: 200028) is located directly to the west of the scheme. This waterbody has a 'Good' overall ecological status according to the Water Framework Directive (WFD). Blackhouse Burn is not Scottish Environment Protection Agency (SEPA) classified, however runs underneath St Philans bridge and flows into the Firth of Clyde waterbody.
- There is a 'High' likelihood of surface water and coastal water flooding within the scheme extents. This suggests that each year this area has a 10% chance of flooding.

Regulatory Requirements

A Record of Determination will not be required for this scheme.

A Habitat Regulations Appraisal will not be required for this scheme.

A Marine Licence **will be** required for this scheme due to the Mean High-Water Spring (MHWS) being located directly below the works.

Environmental Tasks Required

TASKS	WHEN REQUIRED	DESCRIPTION	RESPONSIBILITY
Toolbox Talks	Onsite	Toolbox talks/environmental briefings to be given to operatives onsite – Noise and Vibration and Water Pollution Prevention.	Operatives/Site Staff
Letter Drop	Prior to works	A letterbox drop is required for properties within 300m of the scheme, detailing construction activities due to nighttime programming. See Appendix A – Scheme Location Map, Figure 2: Notification Map.	Operatives/Site Staff
Council Notification	Prior to works	Notification sent to North Ayrshire council detailing construction activities due to nighttime programming. See Appendix C – Consultation for further details.	Amey's Environment Team
Consultation with Marine Directorate	Prior to works (already undertaken)	Consultation with the Marine Directorate was undertaken to confirm the need for a Marine Licence. Please see Appendix C – Consultation.	Amey's Environment Team
Consultation with the Ayrshire River Trust.	Prior to works	Due to in water working and the potential need to create a dry working area, the local fisheries and rivers trust have been contacted. Please see Appendix C – Consultation.	Amey's Environment Team
Fish Rescue	During construction	Fish rescue is required during construction works within the Blackhouse Burn.	Operatives/Site Staff to liaise with Ayrshire River Trust.
Preliminary Ecological Walkover (PEW) and PEW Report	Prior to works	A PEW was undertaken by two Amey ecologists in April 2026 to assess the scheme locations ecological features and constraints. Please see PEW report for further details.	Amey's Ecology Team
SEPA authorisation	Prior to works	Hydro-demolition wastewater must not be discharged on site. Even if treated, on-site disposal requires authorisation. Discharging wastewater onto land (e.g., grass	It is the contractor's requirement to liaise with SEPA in regard to what regulatory requirements are required for the disposal of wastewater.

		verge) requires an Environmental Authorisations (Scotland) Regulations (EASR) authorisation, as it is regulated by SEPA.	
Marine Licence	Prior to both Investigation and Construction works	A Marine Licence must be obtained before any investigation or construction works can begin.	Amey's Environment Team
Consultation with statutory bodies	As part of the Marine Licence process.	Consultation with selected statutory bodies is required in relation to the marine licence.	Amey's Environment Team

Environmental Contact Details

Contact the Environment Team for further advice if significant alterations are made to the design or construction methodology from what was considered in the assessment (this includes, but not limited to, changes such as day works changed to night-time working, scheme delayed by more than a month or a week for vegetation works and use of drilling/percussive plant introduced).

This assessment should be reviewed if the scope of works changes and/or if works are not undertaken within **12 months** of the issue date.

For further advice on this review please contact:

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1. Overview of Scheme

1.1. Introduction

This environmental report has been undertaken in accordance with the South West Scottish Trunk Road Network Management Contract, the Environment and Sustainability discipline of the Design Manual for Roads and Bridges (DMRB), Environmental Impact Assessment (Scotland) Regulations 1999 (as amended) and The Roads (Scotland) Act 1984. This report documents screening and scoping of the main environmental and sustainability factors and impacts to be evaluated and highlights the need for further study if required. All projects, including those not subject to EIA screening, shall undergo a proportionate level of environmental assessment to ensure any significant issues are identified and addressed¹.

Completion of this Environmental Scoping Report provides evidence that Amey have taken into consideration all contractual and legislative requirements related to the environment for each design that is undertaken.

This assessment should be reviewed if the scope of works changes and/or if works are not undertaken within **12 months** of the issue date.

1.2. Project Description

Requirement for Scheme

Concrete Investigations: The proposed concrete investigations are intended to determine the current condition of the soffit and to assess the extent of damage to the existing concrete. The findings from these investigations will provide essential information to guide the design and implementation of the Impressed Current Cathodic Protection (ICCP) system.

Parapet Replacement: The existing parapet system has been identified as non-standard and non-compliant. As a result, it will be replaced with a system that complies with BS EN 1317 standards. Furthermore, assessments of the parapet plinths have found that they lack sufficient structural capacity to withstand impact forces. Consequently, strengthening and widening of the parapet plinths will be carried out to deliver the required resistance.

Deck Soffit Repairs: Significant spalling has been observed in the deck soffit, which has led to the exposure of reinforcement. This condition has the potential to compromise the structural integrity of the bridge. Therefore, repair works to the soffit are planned. The installation of the ICCP system will play a key role in limiting further deterioration of the structure.

Investigation Actives

Investigations for ICCP design:

A detailed concrete testing survey will be undertaken, including:

- Visual and hammer tapping survey of the entire deck soffit.
- Half-cell potential testing at 500mm x 500mm grid spacing to identify areas where further testing is required.
- Targeted concrete testing in localised areas, including:
 - Cover meter readings;
 - Chloride ion profiling;
 - Carbonation depth testing;
 - Surface resistivity testing; and
 - Concrete coring and testing (including cement content).

¹ LA 102 Screening projects for Environmental Impact Assessment.
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Construction Activities

Parapet Replacement:

The parapet replacement works will include:

- Removing the existing aluminium parapets from both sides of the bridge and its wing walls.
- Hydro-demolishing sections of the parapet plinths and footpath.
- Installing new reinforcement and widening the parapet plinths.
- Preparing formwork and casting new concrete.
- Backfilling excavated areas and reinstating the footpath.

Deck Soffit Repair Works:

Soffit repairs will be carried out in stages. Each stage will consist of repairing a strip approximately 1.2m wide. The process includes:

- Hydro-demolition of approximately 65mm of existing concrete to expose corroded reinforcement.
- Reinforcement cleaning to remove surface corrosion.
- Installing additional reinforcement anchored into the slab, along with sacrificial anodes for corrosion protection.
- Applying spray-applied concrete to re-cover the reinforcement.
- Installing the ICCP system.
- Repeating the process until the full soffit area has been repaired.

Plant and Machinery Required

- Excavator and concrete breaker
- High-pressure water jets for hydro demolition
- Water tank and pumps (silt buster)
- Concrete mixer and pump
- Hand-held tools for drilling
- Sprayed concrete equipment (Jet)
- Sampling tools and Ground Penetrating Radar (GPR) scanning equipment

The proposed works will be undertaken entirely beneath the existing structure. For the deck soffit repairs, the design proposal includes the installation of a temporary deck above the watercourse, which will provide a safe working platform and simultaneously protect the watercourse from potential construction impacts. In contrast, investigation works will be carried out from within the watercourse itself.

Programming

The investigation works start date remain dependent on the approval of the Marine Licence. Once confirmation is received, investigation works will commence and construction activities will flow and are expected to last approximately 4–6 weeks. These works may also require periods of nighttime working.

Traffic Management

A single-file temporary traffic management (TM) arrangement will be in place for the duration of the works. This will restrict vehicles to a single running lane, with traffic passing the works area in alternating directions. Vehicle movements will be controlled by temporary traffic signals, which will manage the flow of traffic safely and efficiently by allowing one direction to proceed at a time.

1.3. Scheme Location

The scheme is located to the north of Largs, North Ayrshire along the A78, located next to St Philans Road. The scheme can be found at the following National Grid Reference (NGR):

- Scheme Location: NS 19138 63712

Please see Figure 1: Scheme location map in Appendix A.

1.4. Scheme Procurement

Project Carbon Tool

Transport Scotland Project Carbon Tool must be completed on a weekly basis for all Works Contracts.

This scheme is As of Rights and WILL NOT require a Carbon Tool.

Feasibility Report

All Works Contracts with an Estimated Bid Value greater than £100,000 require a report to the Director on the feasibility of sourcing at least 20% of the materials required for the Scheme from recycled, secondary or re-used sourced.

This scheme is not a Works Contract in excess of £100k and therefore DOES NOT REQUIRE a feasibility report.

Site Waste Management Plan

All schemes with an estimated bid greater than £350,000 must have a Site Waste Management Plan developed.

This scheme is not in excess of £350k and therefore DOES NOT REQUIRE a Site Waste Management Plan.

1.5. Regulatory Requirements

Habitats Regulations Appraisal – Potential Effects on European sites

Table 1: Habitats Regulations Appraisal: Identification of Potential Effects of European Sites

IDENTIFICATION OF POTENTIAL EFFECTS ON EUROPEAN SITES	
As required under the Conservation (Natural Habitats, &c.) Regulations 1994, all projects are to be screened for potential effects on European Sites. Guidance / procedure on how this legislative requirement is enacted for road and bridges schemes is provided by DMRB LA 115. Amey's Habitats Regulations Appraisal Procedure (NMC-Env-PR-003) details how this is to be undertaken for works on the Network Management Contract for the South West trunk road unit.	
• Does the proposed scheme meet any of the following criteria: • Located within any Special Area of Conservation (SAC), candidates SAC (cSAC), provisional SAC (pSAC), Special Protection Area (SPA), provisional SPA (pSPA) or Ramsar site; • Located ≤ 2km of any SAC, cSAC, pSAC, SPA, pSPA or Ramsar site; • Located ≤ 30km of any SACs, cSACs or pSACs, where bats are one of the qualifying interests; • Crosses or lies adjacent to, upstream of, or downstream of, a watercourse which is designated in part or wholly as a European Site; • Has a potential hydrological or hydrogeological linkage to a European Site containing a Groundwater Dependant Terrestrial Ecosystem (GWDTE) which triggers assessment in accordance with LA 113; or	☐ Yes ☒ No

- Has an Affected Road Network (ARN) which triggers the criteria for assessment of European Sites in accordance with LA 105.

DMRB LA 115 also requires additional European Sites to be screened where the existence of ecological connectivity between schemes and European Sites is identified beyond the above criteria.

Does the proposed scheme have ecological connectivity with any European Sites outwith the above criteria?

☐ Yes ☒ No

As per DMRB LA 115, and in line with Amey's Habitats Regulations Appraisal Procedure (NMC-Env-PR-003):

If 'No' to both of the above, then no further assessment is required in relation to Habitats Regulations Appraisal.

If 'Yes' to either of the above, then an initial screening exercise is to be undertaken. Refer to '1.5.2. Habitats Regulations Appraisal – Pre-Screening'.

2. Environmental Screening

The Roads (Scotland) Act 1984 states that "improvement", in relation to a road, means the doing of anything for the benefit of road users, or any class of road users, beyond that which is essential to placing the road in a proper state of repair, and includes the improvement of the amenity.

The term "maintenance" includes repair and certain cleansing activities.

This scheme is considered to be "improvement" and is subject to further consideration under the Act.

2.1. Record of Determination

In accordance with The Roads (Scotland) Act 1984 (Environmental Impact Assessment) Regulations 2017, this is an Improvement Project and not a "Schedule 1 Development".

Improvement schemes are considered to be a "relevant project", under the Regulations, where they reach the thresholds in the table below. Relevant projects must undergo determination; this is published by Scottish Ministers in the form of a Record of Determination (RoD).

Table 2: Record of Determination

RECORD OF DETERMINATION (ROD)	
Relevant project threshold:	
• Total works area exceeds 1 ha (10,000m ²), and/or	☐ Yes ☒ No
• Project located wholly or partly within a sensitive area.	☐ Yes ☒ No
A RoD will not be required for this scheme.	

3. Environmental Scoping

The aim of this Environmental Scoping Report is to focus on the key environmental and sustainability issues likely to be of relevance to the proposed scheme. It will also provide a proportionate environmental assessment and identify any significant environmental effects.

Key information arising from scoping is noted within the Summary of Environmental Considerations at the start of this report.

3.1. Air Quality

Key Baseline Conditions

The scheme is located on the A78 along the west coast just north of Largs, surrounded by trees and shrubs and the Firth of Clyde located to the west. There is one residential property (St Phillans Lodge) located approximately 23m southeast of the works. There are no further non-residential air quality sensitive receptors located within 200m of the scheme.

Baseline air quality is mainly influenced by vehicles travelling along the A78 carriageway. The closest manual count point along the A78 approx. 1.5km north from the works is 50758². This shows that in 2024 the Annual Average Daily Flow (AADF) of traffic for all motor vehicles was 5,276 with 86 of those being Heavy Goods Vehicles (HGV)s. This level of traffic represents the most significant local source of air pollutants.

North Ayrshire Council has not declared any Air Quality Management Areas³ (AQMAs).

The Scottish Pollutant Release Inventory (SPRI)⁴ has not identified any SPRIs within 1km of the scheme. In addition, there are no air quality monitoring stations⁵ located within 200m of the proposed works.

Impacts

- On site construction activities such as hydro-demolition and concrete breaking carry a potential to produce airborne particulate matter and generate emissions that may have a temporary impact on local air quality levels.
- TM implemented during the scheme may result in an increase in vehicle emissions through idling vehicles and increased congestion. This may result in a temporary deterioration in local air quality.
- During construction there is the potential for an increase in dust and emissions from plant and machinery. This is likely to cause a slight deterioration in air quality within the local area. These impacts will last for the duration of the works only.
- Unregulated disposal of hydro-demolition waste may result in airborne dust emissions and exposure risks to workers and the public.
- The impacts identified will be temporary for the duration of the works only and therefore no change is predicted on long term air quality.

Design Mitigation and Regulatory Requirements

- A silt buster will be used to contain and filter all waste generated on site. All waste produced by the hydro-demolition works will be captured and processed through the onsite silt buster, preventing the release of airborne particulate matter and minimising any potential impact on local air quality.

Site Specific Control Measures

- Best practice and measures as outlined in the 'Guidance on the assessment of dust from demolition and construction (January 2024⁶)' published by the Institute of Air Quality Management (IAQM), which includes the following mitigation relevant to this scheme will be followed:

² [Road Traffic website - Count point 50758](#) (Accessed 07/04/2026)

³ [Air Quality Management Areas](#) (Accessed 07/04/2026)

⁴ [Scottish Pollution Release Inventory](#) (Accessed 07/04/2026)

⁵ [Latest pollution map](#) (Accessed 07/04/2026)

⁶ [Construction-Dust-Guidance-Jan-2024.pdf \(iaqm.co.uk\)](#) (Accessed 07/04/2026)

- The site layout will be planned (including plant, vehicles and Non-Road Mobile Machinery (NRMM)) so that machinery and dust causing activities are located away from receptors, as far as reasonably practicable;
- Remove materials that have a potential to produce dust from site as soon as possible, unless being re-used on site (cover or fence stockpiles to prevent wind whipping);
- Only use cutting, grinding or sawing equipment fitted or in conjunction with suitable dust suppression techniques such as water sprays or local extraction, e.g. suitable local exhaust ventilation systems;
- Minimise drop heights from conveyors and other loading or handling equipment;
- Ensure vehicles entering and leaving the work area are covered to prevent escape of materials during transport;
- Ensure equipment is readily available on site to clean any dry spillages, and clean up spillages as soon as reasonably practicable after the event using wet cleaning methods; and
- When not in use, plant, vehicles and NRMMs will be switched off and there will be no idling vehicles.

Other best practices measures include:

- Plant, vehicles and NRMM will be regularly maintained, paying attention to the integrity of exhaust systems to ensure such fuel operated equipment is not generating excessive fumes.
- Green driving techniques will be adopted, and effective route preparation and planning will be undertaken prior to works.
- Where possible, materials will be sourced locally.

Conclusions

The residual significance of effects is considered not significant and does not warrant any further assessment in accordance with DMRB Guidance document LA 105: Air Quality.

3.2. Cultural Heritage

Key Baseline Conditions

A desk-based assessment was undertaken using Pastmap⁷. A study area of 300m was used for designated cultural heritage assets and an area of 200m was used for non-designated cultural heritage assets. See Table 3 and Table 4 below for full details.

Table 3: Designated Cultural Heritage Assets within 300m

NAME	REFERENCE NUMBER	DESCRIPTION	DISTANCE FROM SCHEME
St Phillans Lodge	LB7280	Category C - Listed Building	23m southeast
Manor Park Hotel	LB7275	Category B - Listed Building	280m northeast

Table 4: Non-Designated Cultural Heritage Assets within 200m

NAME	REFERENCE NUMBER	DESCRIPTION	DISTANCE FROM SCHEME
Manor Park Hotel, Lodge	232620 & 80625	National Record of the Historic Environment (NRHE) and Historic	23m southeast

⁷ [Pastmap | PastMap](#) (Accessed 07/04/2026)

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Impacts

- There will be a temporary obstruction to views of and from the Lodge, Manor Park Hotel Listed Building due to the close proximity of the works.
- Works are unlikely to physically alter the Lodge or Manor Park Hotel Listed Building.

Design Mitigation and Regulatory Requirements

A platform below the bridge structure will be built to prevent wastewater from spilling over into the watercourse, thus preventing splashing onto the designated features listed above.

Site Specific Control Measures

All site staff must be made aware of the location of the Lodge, Manor Park Hotel Listed Building prior to construction.

Conclusions

Providing all works operate in accordance with current best practice, the residual impact to cultural heritage is considered to be neutral.

In accordance with DMRB Guidance document LA 106: Cultural Heritage Assessment, no further assessment is required.

3.3. Landscape and Visual Effects

Key Baseline Conditions

The scheme is located along a coastal setting and is surrounded by dense vegetation and aquatic features. The nearest residential property, St Phillans Lodge, lies approximately 23m to the southeast and will have a clear view of the works. In addition, North Ayrshire Council's Core Path Plan⁸ identifies Core Path NC91 (Blackhouse Burn path) located approximately 40m south of the scheme extents. This is a short, wooded walk traversing the fields at the base of Knock Hill to the Routenburn Road, continuing either down to Largs or on to Skelmorlie. According to Ayrshire Coastal Path⁹, this path is currently closed due to storm damage. Therefore, it is unlikely that pedestrians will have a view of the scheme extents.

A desktop study using Scotland's Environment Map¹⁰ has highlighted that the scheme is not situated with a National Park (NP), National Scenic Area (NSA) or Garden & Designated Landscapes (GDL). It has, however, been identified that several unnamed ancient woodlands are located within 500 m of the scheme. The closest is situated approximately 10 m east of the works (Wood ID: 24936) and is classified as long-established woodland of plantation origin. No Tree Preservation Orders (TPOs) are present within 500 m of the works.

The Scottish Landscape Character Assessment map¹¹ has identified the land character type as Raised Beach Coast and Cliffs. This landscape type focused on thin strips of land on the western coastal edge of the mainland, facing towards the Firth of Clyde, and around the north-western and north-eastern coastal edge of the isle of Arran.

The Historic Land Use Assessment (HLA) Map¹² highlights that the previous land use of the scheme extents consists of designated landscape, Rectilinear Fields and Farms.

Impacts

- The proposed works will result in a temporary adverse impact on the surrounding landscape character and the general setting of the area during the construction phase. These impacts will arise from the

⁸ [Core paths plan](#) (Accessed 07/04/2026)

⁹ [12. Largs to Skelmorlie | Route Path | Ayrshire Coastal Path](#) (Accessed 07/04/2026)

¹⁰ [Map | Scotland's environment web](#) (Accessed 07/04/2026)

¹¹ [Scottish Landscape Character Types Map and Descriptions | NatureScot](#) (Accessed 07/04/2026)

¹² [HLAmap](#) (Accessed 07/04/2026)

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presence of construction activities, equipment, and associated temporary disturbance. However, the effects will be short-term and reversible, being confined to the duration of the works.

- Due to night-time programming, construction site lighting during night-time hours could cause disturbance for the residential property located 23m southeast of the works.
- Visual impacts to those residing within the residential property are anticipated due to the proximity of the works and the lack of vegetation screening.
- The works will have no impact on the surrounding ancient woodlands, as all activities will be strictly contained within the defined scheme extents.

Design Mitigation and Regulatory Requirements

The residents of St Phillans Lodge should be notified in advance of the works due to the potential for temporary impacts on visual amenity and general disturbance during the construction period.

Site Specific Control Measures

- The design and appearance of the structure will be maintained as closely as possible to the existing form, ensuring the character of the surrounding landscape is retained.
- Temporary site lighting used throughout the scheme will be directional and pointed only at the area of works.
- Plant/machinery/materials will be stored in unobtrusive areas when not in use and will not be stored on grass verges
- During construction the site should be kept clean and tidy, with materials, equipment, plant and wastes appropriately stored, reducing the landscape and visual effects as much as possible.
- Works should be confined to necessary areas and will avoid encroaching on land and areas where work is not required including for general operations, equipment/containers storage and parking.

Conclusions

With mitigation measures and best practice in place, it is anticipated that any landscape and visual effects associated with the works are unlikely to be significant.

Therefore, in accordance with DMRB Guidance document LA 107: Landscape and Visual Effects, no further assessment is required.

3.4. Biodiversity

Key Baseline Conditions

SiteLink¹³ does not highlight any European designated Sites designated for nature conservation i.e. Special Protection Areas (SPA), Special Areas of Conservation (SAC), or Ramsar Sites located within 2km or share connectivity with the scheme extents. SiteLink has not identified the presence of national designations (such as Sites of Special Scientific Interest (SSSIs) or Local Nature Reserves) within 1km of the scheme extents.

Blackhouse Burn flows east to west directly under the proposed works area and flows into the Firth of Clyde, approx. 30m west of the proposed works area.

Information from the Ayrshire Rivers Trust indicates that Blackhouse Burn is likely to support populations of brown trout (*Salmo trutta*) potentially sea trout (an anadromous form of *Salmo trutta*) and European eels (*Anguilla anguilla*). Brown trout in Scotland occur widely in rivers, burns, lochs and coastal waters. Sea trout, in particular, migrate to marine environments to feed before returning to freshwater to spawn.

Migration patterns are seasonally defined. According to NatureScot¹⁴, downstream migration towards the sea typically occurs from April to early June, as juveniles transition physiologically for saltwater. Adult sea trout

¹³ [SiteLink - Map Search](#) (Accessed 07/04/2026)

¹⁴ [Brown trout | NatureScot](#) (Accessed 07/04/2026)
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then return to freshwater to reproduce, with upstream migration and spawning taking place between mid-October and early January.

Both brown trout and sea trout are listed as Priority Species under the UK Biodiversity Action Plan (UK BAP)¹⁵ due to the species' ecological importance, sensitivity to water quality, and declines associated with habitat loss, diffuse pollution, and barriers to migration.

Please see the Preliminary Ecological Walkover (PEW) report for further baseline details.

Field Survey

Two competent ecologists have undertaken a Preliminary Ecological Walkover (PEW) in April 2026. Please refer to this report for further details.

Impacts

- In the absence of mitigation, the timing of the proposed works may negatively impact the fish species by obstructing their upstream migration to their spawning grounds if undertaken from mid-October onwards.
- **Please see the Preliminary Ecological Walkover (PEW) report for further impacts relating to biodiversity.**

Design Mitigation and Regulatory Requirements

- A platform below the bridge structure will be built to prevent wastewater from spilling over into the watercourse. A silt buster will be used to filter all waste from the site which will prevent any impacts to the local biodiversity such as sediment disturbance and silting.
- A Marine Licence will be required to undertake the works.

Consultation

- A Marine Licence is required for these works. As part of the Marine Licencing process, statutory bodies including NatureScot will be consulted to ascertain any comments, mitigations or restrictions regarding the proposed works package.
- The Ayrshire River Trust has been contacted due to the need for working in water and potentially creating a dry working environment below the structure. This has concluded that a Fish rescue and relocation is likely to be required in advance of any in-stream works.– Please see Appendix C for further details.

Site Specific Control Measures

- The proposed works should be programmed out with the migratory season (Mid-October to early January and April to early June) to avoid disturbance to migratory species during sensitive periods of movement and activity.
- **Please see the Preliminary Ecological Walkover (PEW) report for further mitigation measures relating to biodiversity.**

Conclusions

Please refer to the PEW report for biodiversity conclusions.

3.5. Geology and Soils

Key Baseline Conditions

NatureScot's Sitelink resource¹⁶ notes that there are no Sites of Special Scientific Interest (SSSI)'s located within 200m of the scheme, however the Largs Coast Geological Conservation Review Site (GCRS) is located approximately 460m south of the works. GCRS were designed to identify those sites of national and international importance needed to show all the key scientific elements of the Earth heritage of Britain. These sites display sediments, rocks, fossils, and features of the landscape that make a special contribution to our

¹⁵ [List of UK BAP Priority Fish Species \(excluding purely marine species\) \(2007\)](#) (Accessed 07/04/2026)

¹⁶ [Sitelink - Map Search](#) (Accessed 07/04/2026)

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understanding and appreciation of Earth science and the geological history of Britain, which stretches back over 2,800 million years.

Scotland's Soil Map¹⁷ has highlighted that the soil located within the scheme extents consists of brown earths.

A desktop study using the British Geological Survey Map¹⁸ was used to identify local geology type within the scheme extents:

Superficial deposits

- Raised marine deposits of Holocene age-Clay, silt, sand and gravel. These sedimentary deposits are shallow marine in origin. They are detrital, generally coarse-grained forming beaches and bars in a coastal setting.
- Alluvium-Clay, silt, sand and gravel. These sedimentary deposits are fluvial in origin. They are detrital, ranging from coarse- to fine-grained and form beds and lenses of deposits reflecting the channels, floodplains and levees of a river or estuary (if in a coastal setting).

Bedrock geology

- Kelly Burn Sandstone Formation-Sandstone. These sedimentary rocks are fluvial in origin. They are detrital, ranging from coarse- to fine-grained and form beds and lenses of deposits reflecting the channels, floodplains and levees of a river or estuary (if in a coastal setting).

Impacts

- The works may result in minor soil disturbance, which can create adverse conditions, including erosion and polluted soils.
- The generation of concrete dust can raise the pH of soil resulting in erosion and soil infertility.
- There is potential for spills, leaks or seepage of fuels and oils associated with machinery to escape if not controlled which may negatively affect the soil environment.
- Investigation works carried out from within the watercourse may result in temporary disturbance of river bed sediments due to footfall, positioning of equipment, and limited plant movement.

Design Mitigation and Regulatory Requirements

N/A

Site Specific Control Measures

- Vehicles and materials should not be stored or parked on grass verges where possible. Where damage occurs, the reinstatement of the grass verge should be carried out.
- Excavation of soils should be kept to a minimum and only where necessary, with any excavated soils being re-used on site as far as reasonably practicable.
- Spill kits should be present on site and all operatives should be fully trained in their use. Any fuels or chemicals required for use should be stored securely with dip trays used appropriately and stored under any chemical or fuel containers.
- Any fuel, oil and other chemicals required for use should be stored securely with drip trays used appropriately and stored under any chemical or fuel containers.
- Site operatives should ensure that any concrete is contained within the working area and implementing appropriate soil protection methods to maintain stability and prevent degradation.
- See additional pollution mitigation measures in *Section 3.9 Road Drainage and Water Environment* below.

Conclusions

On the condition that the above mitigation measures and best practice are adhered to, the residual effect on geology and soils is considered not significant.

¹⁷ [Scotland's Soils - soil maps](#) (Accessed 07/04/2026)

¹⁸ [BGS Geology Viewer \(BETA\)](#) (Accessed 07/04/2026)

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Therefore, in accordance with DMRB Guidance document LA 109: Geology and Soils, no further assessment is required.

3.6. Material Assets and Waste

Key Baseline Conditions

Table 5 shows the materials required for construction whilst Table 6 shows waste produced from construction activities.

Table 5: Materials Required

Activity	Materials Required	Sources
Investigation	N/A	N/A
Construction	- Water for hydro-demolition; - Reinforcements; - Concrete (C40/50); - Waterproofing membrane; - Steel parapets; and - Sacrificial Anodes.	- Metal components will have a percentage of recycled content. Recycled content is dependent on supplier and design. - A concrete mix using cement replacement products is proposed.

Table 6: Waste Produced

Activity	Waste Produced	Disposal
Investigation	Spalled concrete	All appropriate waste will be recycled in line with guidance.
Construction	- Aluminium parapet; - Concrete; - Cement contaminated concrete; - Corroded Reinforcement; and - Hydro-demolition wastewater.	- The hydro-demolition waste will be pumped out from below the structure into a silt buster above the bridge which filters the wastewater and neutralises the PH. This waster will then be stored in a tanker, and either be taken away and disposed of offsite or into an adjacent grass verge. - If the hydro-demolition wastewater is being off loaded into the grass verge, authorisation from SEPA would be required in the form of a registration, permit or licence.

Impacts

- Transportation and recovery of materials/waste will require energy deriving from fossil fuel, a non-renewable source.
- The works will result in contribution to resource depletion through use of virgin materials.
- Transportation and recovery of materials/waste will require energy deriving from fossil fuel, a non-renewable source.

- Waste left on-site or stored incorrectly has the potential to cause silt and soil deposition into nearby watercourse(s).
- Improper disposal of hydro-demolition waste can pollute watercourses and soils through elevated alkalinity and suspended solids, leading to degradation of water quality, harm to aquatic life, and damage to sensitive habitats.

Design Mitigation and Regulatory Requirements

- Hydro-demolition discharge requires appropriate authorisation if it is being disposed of on-site, even if treated prior to discharge. Wastewater should ideally be caught (i.e. a sealed demolition scaffold around the area) and disposed of off-site at a licenced facility.
- Wastewater discharge to land (e.g., grass verge) requires a SEPA EASR authorisation.
- Alternatively, wastewater can be discharged into the foul sewer with appropriate permission from Scottish Water.
- It is the contractor's requirement to liaise with SEPA in regard to what regulatory requirements are required for the disposal of wastewater.

Site Specific Control Measures

- Materials will be derived from recycled, secondary or re-used origin as far as practicable within the design specifications to reduce natural resource depletion and associated emissions.
- Where possible, materials will be obtained locally, and operatives deployed from the local depot where possible to reduce haulage and scheme associated journeys, reducing impact of associated Greenhouse Gases (GHG) emissions on climate change.
- Where possible all materials will be reused throughout the network, if not possible they will be recycled locally. Not all materials will be able to be reused/recycled and will require landfilling.
- The contractor will adhere to waste management legislation and ensure they comply with waste management Duty of Care.
- All waste leaving the site will be removed from site by a licence waste carrier. All waste documentation will be provided when requested.
- Waste should be appropriately stored and separated on-site, away from any watercourses.

Conclusions

It has been determined that the proposed project will not have direct or indirect significant effects on the consumption of material assets or creation of waste.

Therefore, in accordance with DMRB Guidance document LA 110: Material Assets and Waste, no further assessment is required.

3.7. Noise and Vibration

Key Baseline Conditions

The scheme is located on the A78 along the west coast just north of Largs, surrounded by trees and shrubs and the Firth of Clyde located to the west. There is one residential property (St Phillans Lodge) located approximately 23m southeast of the works. There are no further noise non-residential noise sensitive receptors located within 300m of the scheme.

According to the Transport Noise Action Plan (TNAP) 2024-2028¹⁹ the scheme is not located within a Candidate Noise Management Area (CNMA), suggesting that the area is not currently prioritised for strategic noise mitigation.

¹⁹ [Transport Noise Action Plan \(TNAP\) 2024 to 2028 | Transport Scotland](#) (Accessed 07/04/2026)
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Baseline noise is mainly influenced by vehicles travelling along the A78 carriageway. The closest manual count point along the A78 approx. 1.5km north from the works is 50758²⁰. This shows that in 2024 the AADF of traffic for all motor vehicles was 5,276 with 86 of those being HGVs. The volume and composition of this traffic, particularly the presence of HGVs, are likely to be key contributors to baseline ambient noise levels within the scheme extents.

According to Scotland Noise Map²¹ the noise along the A78 within the scheme extents during daytime hours ranges from 59dB - 63dB L_{day} . During nighttime hours the noise ranges from 49dB - 56dB L_{night} . At the nearest identified receptor, baseline noise is recorded at around 57dB during the day and 45dB during the night, providing a representative indication of current acoustic conditions in the area.

Impacts

- Noise-intensive activities, including the use of heavy plant and machinery such as hydro-demolition equipment, will be required during night-time working hours for both elements of the scheme. These activities have the potential to cause disturbance to nearby amenity receptors, including the single residential property located within the local area.
- As there are no changes to traffic volumes, speed, or any changes to road infrastructure it is anticipated that no permanent impacts on noise and vibration are determined upon completion of works.
- TM may result in increased noise levels due to idling vehicles and increased congestion

Design Mitigation and Regulatory Requirements

- Due to night-time programming, the Amey Environmental team has contacted North Ayrshire Council's Environmental Health Team prior to the commencement of the works. Please refer to Appendix C – Consultation.
- Residential properties within 300m that are likely to be impacted by the works will be notified via a letter drop – See Appendix A: Figures.

Site Specific Control Measures

- Effects from noise should be kept to a minimum through the use of appropriate mufflers and silencers fitted to machinery. All exhaust silencers should be checked at regular intervals to ensure efficiency.
- Avoid unnecessary revving of engines and switch off equipment when not in use.
- Minimise drop height of materials.
- To minimise disturbance, 'soft start' techniques will be employed when operating noise-intensive equipment, plant, or machinery. This approach helps reduce sudden noise spikes by gradually increasing operational levels, allowing nearby residents, workers, and wildlife to adjust incrementally to the sound.
- The noisiest works will be completed before 23:00 where feasible.

Conclusions

With best practice mitigation measures in place, the residual construction effects associated with Noise and Vibration is considered not significant.

Therefore, in accordance with DMRB Guidance document LA 111: Noise and Vibration no further assessment is required.

3.8. Population and Human Health

Key Baseline Conditions

A 300m study area was undertaken due to the like-for-like, localised nature of the works.

The scheme is located on the A78 along the west coast just north of Largs, surrounded by trees and shrubs and the Firth of Clyde located to the west. There is one residential property (St Phillans Lodge) located

²⁰ [Road Traffic website - Count point 50758](#) (Accessed 07/04/2026)

²¹ [Noise map | Scotland's Noise](#) (Accessed 07/04/2026)

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approximately 23m southeast of the works. There are no further community facilities or businesses of note located within 300m of the scheme.

North Ayrshire Council's Core Path Plan²² identifies Core Path NC91 (Blackhouse Burn path) located approximately 40 m south of the scheme extents. This is a short, wooded walk from the fields at the base of Knock Hill to the Routenburn Road, continuing to Largs or on to Skelmorlie. According to Ayrshire Coastal Path²³, this path is currently closed due to storm damage.

There are no National Cycle Network Routes²⁴, bridleways²⁵ or agricultural access points within 300m of the scheme extents. In addition, no bus stops are located within 300 m of the works.

Along this section of the A78, the carriageway is unlit, however there is one layby located approx. 135m south from the scheme extents. Other land uses within 300m include agricultural fields used for agricultural business.

Impacts

- The NC91 core path will remain open during works.
- Access to residential properties will be maintained throughout the construction period. Signal-controlled temporary traffic management will be in place, and residents will be provided with uninterrupted access at all times, as the works will not affect property entrances.
- There is no requirement for temporary or permanent land take as the site works take place all within the carriageway boundary.
- TM may cause traffic delays to road users and residents.
- The layby located approx. 125m south from the works will not be impacted by TM.

Design Mitigation and Regulatory Requirements

N/A

Site Specific Control Measures

- Temporary site lighting used throughout the scheme will be directional and pointed only at the area of works.
- Access to residential properties should be left un-obstructed where this is reasonably practicable. Where obstruction occurs, any local access should be granted as required.

Conclusions

With best practice mitigation measures in place, the residual construction effects associated with Population and Human Health is considered not significant.

Therefore, in accordance with DMRB Guidance document LA 112: Population and Human Health no further assessment is required.

3.9. Road Drainage and the Water Environment

Key Baseline Conditions

The works are located directly above the Mean High-Water Springs (MHWS), which is the typical height reached by the highest tides during spring conditions. Because the site sits above this level, it is considered to be within a coastal area where tides, waves and salty sea air may influence the structure and the way construction activities are carried out.

²² [Core paths plan](#) (Accessed 07/04/2026)

²³ [12. Largs to Skelmorlie | Route Path | Ayrshire Coastal Path](#) (Accessed 07/04/2026)

²⁴ [Detailed maps & routes to explore across the UK | OS Maps](#) (Accessed 07/04/2026)

²⁵ [Dobbin Map](#) (Accessed 07/04/2026)

According to the SEPA's water classification hub²⁶ Firth of Clyde Inner - Cumbraes (ID: 200028) is located directly to the west of the scheme. This waterbody has a 'Good' overall ecological status according to the WFD.

The Blackhouse Burn watercourse is not SEPA classified, however runs underneath St Philans bridge and flows into the Firth of Clyde waterbody.

SEPA's Flood Maps²⁷ shows that there is a 'High' likelihood of surface water and coastal water flooding within the scheme extents. This suggests that each year this area has a 10% chance of flooding.

The underlying groundwater body within the scheme extents is identified as North Ayrshire Coastal groundwater (ID: 150785²⁸), which SEPA (under the WFD) classifies as having a 'Good' overall ecological potential. Additionally, the scheme area is not located within a designated Nitrate Vulnerable Zone²⁹, indicating a lower risk of nitrate-related water pollution.

Drainage along the A78 where the scheme is located is unknown.

Impacts

- Potential for spills, leaks or seepage of fuels and oils associated with plant to escape and reach drainage systems and watercourses if not controlled, which may adversely impact the water environment.
- Concrete will likely be used throughout the scheme. On-site mixing (if required) has potential to contaminate nearby watercourses through wash-off if not effectively managed. Concrete wash out is highly alkaline and contains chromium which can cause water pollution.
- If not adequately controlled, debris and run off from the works could be suspended in the surface water, in the event of a flooding incident, this debris may be mobilised and could enter the road drainage having a detrimental effect on the surrounding local water environment.
- The location of the works within a high-risk flood zone presents a potential for flood events to delay works and mobilise disturbed material, increasing downstream sediment loads and affecting the watercourse. Unexpected rises in water level could also inundate any required dry working areas.

Consultation

- Following consultation with the Marine Directorate, it has been confirmed that a Marine Licence must be obtained before any investigation or construction works can begin. This requirement arises because the MHWS boundary lies below the St Philians structure. The MHWS is located at the following NGR: NS 19166 63731. Further details are provided in Appendix C – Consultation.
- As the proposed in-water works are located within coastal waters, consultation with the Scottish Environment Protection Agency (SEPA) is not required, as these activities fall outwith SEPA's regulatory remit.

Design Mitigation and Regulatory Requirements

- A Marine Licence is required before the investigation and construction works can commence.
- Hydro-demolition discharge requires appropriate authorisation if it is being disposed of on-site even if treated prior to discharge. Hydro-demolition wastewater should be captured (i.e. from a sealed demolition scaffold around the area) and disposed of off-site at a licenced facility.
- Wastewater discharge to land (e.g., grass verge) requires a SEPA EASR authorisation. Alternatively, wastewater can be discharged into the foul sewer with appropriate permission from Scottish Water. It is the contractor's requirement to liaise with SEPA in regard to what regulatory requirements are required for the disposal of wastewater.

Site Specific Control Measures

²⁶ [Water Classification Hub](#) (Accessed 07/04/2026)

²⁷ [SEPA Flood Maps](#) (Accessed 07/04/2026)

²⁸ [Water Classification Hub](#) (Accessed 07/04/2026)

²⁹ [Nitrate Vulnerable Zones: maps - gov.scot](#) (Accessed 07/04/2026)

- All debris which has the potential to be suspended into the coastal and surface water and wash into the local water environment will be cleaned from the site following the works.
- Debris and dust generated as a result of the works will be prevented from entering the drainage system. This can be via the use of drain covers or similar.
- Appropriate measures will be implemented onsite to prevent any potential pollution to the natural water environment (e.g., debris, dust, and hazardous substances). This will include spill kits being present onsite at all times, and the use of funnels and drip trays when transferring fuel etc.
 - The control room must be contacted if any pollution incidences occur on 0800 042 0188 (24 hours, 7 days a week).
- Visual pollution inspections of the working area will be conducted in frequency, especially during heavy rainfall and wind.
- Weather reports will be monitored prior and during all construction activities. In the event of adverse weather/flooding events, all activities will temporarily stop, and only reconvene when deemed safe to do so, and run-off/drainage can be adequately controlled to prevent pollution.
- Prior to works commencing, all operatives will be briefed on SEPA's Guidance for Pollution Prevention (GPP) documents³⁰ (particularly GPP 1, GPP 2, GPP 5, GPP 6, GPP 8, GPP 21 and GPP 22).
- Site operatives should ensure that any concrete is contained within the working area and does not enter the water environment and drainage systems.
- If the mixing of concrete on site is required, site operatives should apply suitable controls to prevent the mixture escaping to the surrounding environment:
 - All mixing should take place a minimum of 10m away from the coastal watercourse, the Blackhouse Burn and drains where possible.
 - All drains within proximity to any mixing must be securely covered or sealed off.
 - All wash water will need to be removed from site
- Prior to works commencing, all operatives will be given the Water Pollution Prevention and Silt briefings, see Appendix B – Environmental Briefings.
- All reasonable steps must be taken to ensure that the works do not result in the erosion of the bed or banks of the watercourse.

Conclusions

Providing the receipt of a Marine Licence for the works is obtained, and all works operate in accordance with current best practice, as demonstrated by SEPA's GPPs, the residual effect on the local water environment during construction is considered to be not significant.

In accordance with DMRB Guidance document LA 113: Road Drainage and the Water Environment, no further assessment is required.

These works must not commence until the necessary licence has been obtained and all associated conditions are in place.

3.10. Climate

Carbon Goals

The Climate Change (Scotland) Act 2009 Scottish Carbon Budgets Amendment Regulations 2025³¹ sets out the statutory framework for reducing GHG emissions in Scotland. The prior annual and interim targets have

³⁰ [Guidance for Pollution Prevention \(GPP\) documents | NetRegs | Environmental guidance for your business in Northern Ireland & Scotland](#) (Accessed 07/04/2026)

³¹ [The Climate Change \(Scotland\) Act 2009 \(Scottish Carbon Budgets\) Amendment Regulations 2025](#) (Accessed 07/04/2026)

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been replaced by five-year carbon budgets, which sets limits on the amount of GHGs that can be emitted in Scotland.

The proposed carbon budgets are aligned with advice from the UK Climate Change Committee (CCC) and calculated in accordance with the 2009 Act. The 2025 Regulations define the baseline years for emissions reductions as 1990 for greenhouse gases including carbon dioxide, methane, and nitrous oxide, and 1995 for others such as hydrofluorocarbons, perfluorocarbons, and sulphur hexafluoride (as set out in Section 11 of the Act). The budgets³² are as follows:

- 2026 - 2030: Average emissions to be 57% lower than baseline.
- 2031 - 2035: Average emissions to be 69% lower than baseline.
- 2036 - 2040: Average emissions to be 80% lower than baseline
- 2041 - 2045: Average emissions to be 94% lower than baseline

These budgets are legally binding and will be supported by a new Climate Change Plan, which will outline the specific policies and actions required to meet the targets.

Transport Scotland remains committed to reducing carbon across Scotland's transport network, this commitment is being enacted through the Mission Zero for Transport. Transport is the largest contributor to harmful climate emissions in Scotland, representing for 37% nationwide, and Transport Scotland are committed to reducing their emissions by 50% by 2030. To support this, Transport Scotland's Fourth Carbon Management Plan is committed to reaching Net Zero emissions across corporate activities by 2027. This will contribute to achieving a legally binding target of net-zero by 2045.

Amey's Company Wide Carbon Goal is to achieve Scope 1 and 2 net-zero carbon emissions, with a minimum of 80% absolute reduction on our emissions by 2035. Amey is aiming to be fully net-zero, including Scope 3 emissions, by 2040.

Amey are working towards a contractual commitment to have carbon neutral depots on the SW NMC network by 2028. Amey have set carbon goals for the SW NMC contract as a whole to be net-zero carbon by 2032.

Monitoring, Management and Opportunities

To support our journey towards carbon neutral and zero waste we include potential opportunities for enhancement utilising circular economy principals within assessment of material assets.

Amey (working on behalf of Transport Scotland) undertake carbon monitoring. Emissions from our activities are recorded using Transport Scotland's Carbon Management System.

Further information identifying how Amey will obtain the above Carbon Goals can be viewed within the Carbon Management and Sustainability Plan Roadmap to net-zero: STRNMC – South West.

3.11. Cumulative Impacts

Key Baseline Conditions

A review of the Scottish Road Works Commissioner's Interactive Map³³ and Amey's current programme of works³⁴ has not identified any roadworks currently programmed at the proposed location. In addition, a search of the North Ayrshire Council Planning Portal³⁵ has not identified any approved or pending planning applications that would directly conflict with the proposed works.

However, due to the absence of confirmed programming information for third-party works, cumulative impacts cannot be fully assessed at this stage.

Impacts

No operational overlap or disruption is anticipated, and there is a minimal risk of conflict with other infrastructure or development activities in the area. This is because no other works or developments are currently known to

³² [transport-scotland-net-zero-route-map.pdf](#) (Accessed 07/04/2026)

³³ [Scottish Road Works Online](#) (Accessed 07/04/2026)

³⁴ [Current Works](#) (Accessed 07/04/2026)

³⁵ [Map Search](#) (Accessed 07/04/2026)

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be taking place at the location, and the proposed investigation activities are small-scale, short-term, and geographically confined. As a result, the potential for interaction with other planned or ongoing activities is considered to be low.

Site Specific Control Measures

Any future schemes will be programmed to take into account already programmed works, and as such any effect (such as from TM arrangements and potential construction noise) will be limited.

Conclusions

Overall, it is unlikely the proposed works will result in a cumulative effect with any other proposed works in the local area. Considering the nature and scale of the maintenance works being undertaken no in combination effects are anticipate.

3.12. Summary

The project has undergone screening using the Annex III criteria to determine whether a formal Environmental Impact Assessment is required under the Roads (Scotland) Act 1984 (as amended by The Roads (Scotland) Act 1984 (Environmental Impact Assessment) Regulations 2017). Based on the Annex III criteria, consultations, and a review of available information, it has been determined that a statutory EIA is not required for this project.

Appendices

Appendix A – Figures

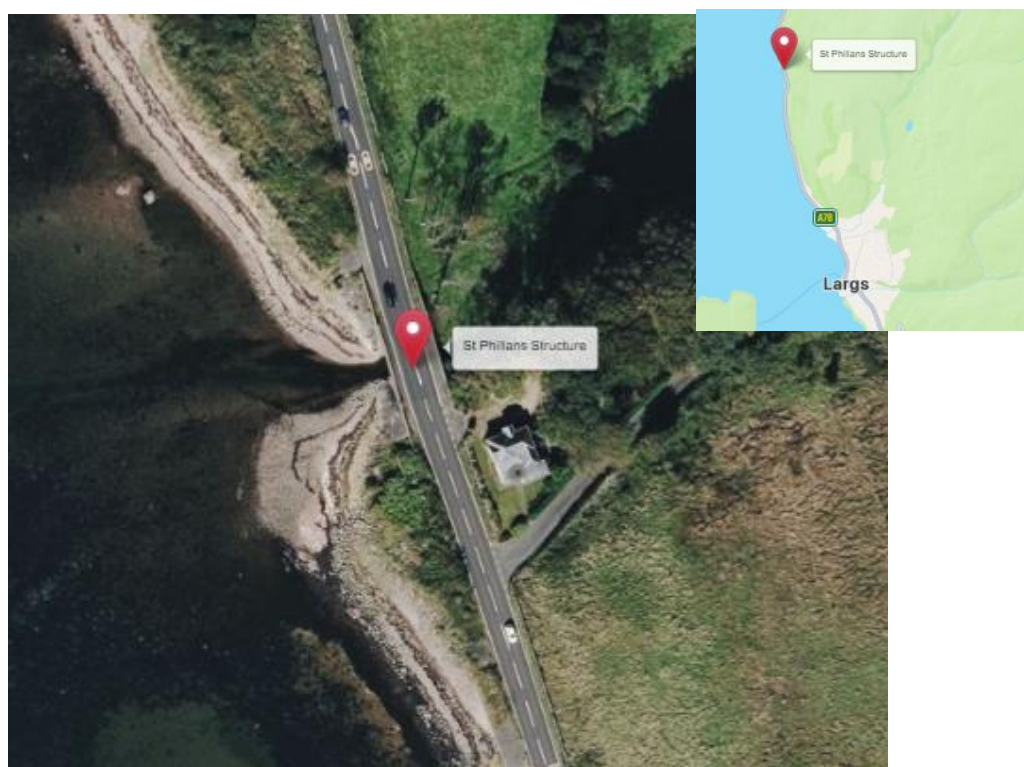


Figure 1 – Scheme Location Plan: Contains public sector information licensed under the Open Government Licence v3.0. Contains OS data © Crown copyright and database right [2026]. Contains Royal Mail data © Royal Mail copyright and database right [2026]. Contains National Statistics data © Crown copyright and database right [2026].



Figure 2 – Notification Plan: Contains public sector information licensed under the Open Government Licence v3.0. Contains OS data © Crown copyright and database right [2026]. Contains Royal Mail data © Royal Mail copyright and database right [2026]. Contains National Statistics data © Crown copyright and database right [2026].

Appendix B – Environmental Briefings

Environmental Briefing



Subject	Noise and Vibration	
Back-ground	• The Construction Industry is one of the leading sources of noise complaints made to Local Authorities. • It is common for local authorities to place restrictive conditions at the planning consent stage in order to control the impact. A request is often made for a code of construction practice or a prior consent for works in accordance with Section 61 of the Control Pollution Act 1974. These may stipulate hours of permitted working, management controls, special restrictions, special restrictions relating to night-time working, the type of equipment to be used, etc.	
Key fact	When might I cause noise and vibration? • Something is considered 'noisy' when the sound is unwanted by the listener. • Noisy activities include: excavation, tunnelling, concrete cutting, piling, using un-silenced generators and concrete pours. Why should I be aware of noise and vibration? • To avoid complaints and maintain good relations with the local community • The Local Authority Environmental Health Officer can serve you with a Section 60 notice stipulating further controls to be complied with if complaints received. They will also have the power to stop works if they believe the impact is not being correctly managed. • Failing to meet noise constraints can result in fines. • Vibration may cause structural damage • Contractual requirements may refer to noise and vibration • To prevent disturbing wildlife as well as humans	
Action to take	Plan when you work • If possible, restrict noisy activities to certain times of the day • Adhere to working hours. Some sites are only consented to work at certain times • Plan deliveries. Arrange routes and times to minimise potential nuisance to the local community	
DO ✓ If possible, keep noisy plant away from public areas ✓ Minimise drop heights into hoppers, lorries and other plant ✓ Use local screening where necessary. Noise can be reduced if a screen is placed between plant and nearby sensitive locations e.g. houses. Screens can be straw bales or ply board ✓ Use silenced generators and tower lights where necessary ✓ Keep acoustic doors and hoods on plant closed – it does make a difference! ✓ Contact your Line Manager if you are in doubt.		DON'T ✗ Undertake noisy works during the evening, at night or very early in the morning if it can be avoided! ✗ Leave doors and hoods open on plant ✗ Leave plant running unnecessarily ✗ Use poorly maintained plant ✗ Ignore complaints from the local community ✗ Undertake activities that could cause damage to nearby structures through vibration unless approved by your line manager.
For further information on the company procedures that relate to this or any other Environmental Briefing, please refer to your Integrated Account Plan or speak with your BU HSEQ Team.		

Environmental Briefing



Noise and Vibration

What to look out for



Key Questions (to check understanding)

1. Who has the power to stop works if noise becomes an issue?
2. What impacts can excessive noise or vibration have?
3. How do you use local screening?
4. When should you not undertake noisy work?

For further information on the company procedures that relate to this or any other Environmental Briefing, please refer to your Integrated Account Plan or speak with your BU HSEQ Team.



Environmental Briefing

Subject	Water Pollution Prevention	
Back-ground	• A large number of oil related water pollution incidents occur each year • Discharging fuel or water containing fuel or oil into drains or watercourses is illegal • Many pollution incidents are from unbunded tanks and can easily be avoided by following simple guidelines	
Key fact	Why is it important to know about water pollution prevention? • <i>Avoid prosecution:</i> Your employer or you as an individual can be prosecuted for causing water pollution • <i>Cost:</i> The costs of clean up far exceed those to put control measures in place • <i>Damage to wildlife:</i> Long-term damage to watercourses including fish kills. Oil spreads rapidly – one gallon of oil can completely cover a lake the size of two football pitches.	
Action to take	• Make sure you know what to do to prevent water pollution	
DO General ✓ Store oils away from drains or watercourses ✓ Return oil and fuels to storage areas after use ✓ Locate oil stores away from areas of high vehicular movement to prevent accidental damage ✓ Bund individual 205 litre drums to 25% ✓ Supervise all fuel deliveries ✓ Lock oil stores when not in use ✓ Use drip trays under all static plant and during refuelling from mobile plant Bulk Storage ✓ Bund tanks and bowzers to 110% ✓ Ensure bunds are free from cracks and leaks ✓ Regularly empty bunds and drip trays of rainwater ✓ Keep all hoses and pipe work within bunded area after use ✓ Keep a spill kit near to refuelling areas ✓ Report any irregularities or incidents DON'T ✗ Refuel or store oil within 10m of watercourses or surface water drains ✗ Leave bunds and drip trays to overflow ✗ Leave refuelling hoses outside of bunds after use ✗ Use high pressure delivery systems when filling small containers ✗ Hose down spills ✗ Ignore spillages		
For further information on the company procedures that relate to this or any other Environmental Briefing, please refer to your Integrated Account Plan or speak with your BU HSEQ Team.		

Environmental Briefing

Water Pollution Prevention

What to look out for

SURFACE WATER DRAIN	FOUL DRAIN
Drain straight to freshwater body or soakaway	Drain into the nearest public sewer
Regulated by the Environment Agency	Regulated by your Water Company
Sometimes colour-coded BLUE	Sometimes colour-coded RED
PUT NOTHING BUT FRESH WATER DOWN THIS DRAIN	NO TOXIC SUBSTANCES DOWN THIS DRAIN

Key Questions (to check understanding)

1. Would you know what to do if there was a spill in your work site?
2. How should you store oils and fuels to prevent water pollution?
3. What should you not do if there is a spill?

For further information on the company procedures that relate to this or any other Environmental Briefing, please refer to your Integrated Account Plan or speak with your BU HSEQ Team.

Appendix C – Consultation

Marine Directorate

Sent: 03/03/2026

I am seeking clarification regarding the position of Mean High Water Springs and the NTL in relation to the St Phillans structure located on Shore Road, Meigle, Largs, North Ayrshire.

Structure location:

NGR: NS 19138 63712

The available mapping attached is not conclusive, and I would be grateful if you could confirm whether the NTL lies to the east or west of the structure.

We are in the process of planning works both above and below the structure and are aiming to determine whether a marine licence is required. Any guidance you can provide on the tidal boundary at this location would be greatly appreciated.

RESPONSE 03/03/2026:

Thank you for your enquiry into the location of the Mean High Water Spring ("MHWS") line at St Phillans.

Any works taking place on the bridge you have located by the grid reference below will require a marine licence from MD-LOT, it is over the sea.

While it is difficult to see, the MHWS is located slightly upstream of the bridge, shown by the MHWS point here: <https://gridreferencefinder.com/os.php?gr=NS1913863712|Site|1,NS1916663731|MHWS|1&v=r&labels=1>

You can find out guidance documents on our website:

[Marine licensing: applicant guidance - gov.scot](#)

And the application form required will be the construction one, also available on our website:

[Marine+licence+application+form+-+construct+alter+or+improve+any+works+v3.pdf](#)

Ayrshire River Trust

Sent: 08/04/2026

I am writing to inform you of proposed maintenance and investigation works at St Philans Bridge which spans Blackhouse Burn, and to seek your advice in relation to undertaking works within the watercourse. The scheme can be found at the following National Grid Reference (NGR):

Scheme Location: NS 19138 63712

The scheme involves a combination of investigation works and structural repairs beneath the bridge deck, including deck soffit repairs, parapet replacement, and preparatory investigations to inform the design of an Impressed Current Cathodic Protection (ICCP) system.

Some elements of the investigations will require temporary access within the watercourse, while the main repair works will be undertaken beneath the structure within a dry working area.

In summary:

- Concrete investigations, including localised testing to support the ICCP design, will be undertaken from within the watercourse. There is a potential requirement for scaffolding to be installed within the channel; however, this has not yet been confirmed and will be subject to further design development.
- Deck soffit repair works will be carried out beneath the bridge using a temporary deck installed above the watercourse, providing a safe working platform and minimising the risk of construction impacts to the burn.
- A cofferdam may be installed, if required, to isolate specific working areas and maintain dry working conditions during repairs. The need for a cofferdam is not yet confirmed and will be determined at detailed design stage.

The works include:

- Visual, hammer tapping and concrete testing surveys of the deck soffit.
- Localised concrete sampling, half-cell testing and coring to inform ICCP design.
- Hydro-demolition and repair of spalled soffit concrete where reinforcement is exposed.
- Installation of additional reinforcement, sacrificial anodes, and an ICCP system.
- Replacement of existing non-compliant parapets, including strengthening and widening of parapet plinths.

We are mindful that Blackhouse Burn may support brown trout and sea trout, which are biodiversity priority species, and we are keen to ensure that works are undertaken in a manner that minimises risk to fish and aquatic habitat. We would therefore welcome any guidance you may have regarding:

- Timing restrictions or preferred working windows;
- Additional mitigation measures;
- Whether a fish rescue or relocation exercise is likely to be required in advance of any in-channel works.

Please let us know if you require further information at this stage, including drawings, method statements, or a programme of works. We would be happy to discuss the proposals further.

We are aware that a Marine Licence **must** be obtained before any investigation or construction works can begin due to the works being undertaken over and within the Mean High-Water Springs and are in the process of obtaining this licence.

RESPONSE 08/04/2026

Many thanks for getting in touch with us. It would be useful for us to see your RAMS, drawings and programme of works please.

I would advise that after fish rescue and relocation sounds very much like it will be required in an advance of any in stream works. The exclusion period for working in water is October to May allowing a working window of May through to the end of September, there can be some flexibility depending on the watercourse and the nature of the work but that timeframe is derived from SEPAs rules and regulations.

You are quite correct that brown/sea trout are likely to be the dominant species but there could also be salmon and I'm confident European eels are likely to be there in good numbers. These coastal burns are usually highly productive for eels and undermined bridge parapets can very good habitat for eels as well as salmonid species.

One other observation I have is that this site will almost certainly be tidal and getting the timing right for fish removal will be critical as we cannot work in saltwater without great risk to the fish due to the very high conductivity of the water, we can cope with brackish to a certain extent but we would want to undertake the rescue on a low tide. I know we're a way off this particular problem but worth bearing in mind.

North Ayrshire Council

Sent: 07/05/2026

I am writing to inform you of proposed maintenance works located to the north of Largs, North Ayrshire along the A78, located next to St Philans Road. The scheme can be found at the following National Grid Reference (NGR):

Scheme Location: NS 19138 63712

Concrete Investigations: The proposed concrete investigations are intended to determine the current condition of the soffit and to assess the extent of damage to the existing concrete. The findings from these investigations will provide essential information to guide the design and implementation of the Impressed Current Cathodic Protection (ICCP) system.

Parapet Replacement: The existing parapet system has been identified as non-standard and non-compliant. As a result, it will be replaced with a system that complies with BS EN 1317 standards. Furthermore, assessments of the parapet plinths have found that they lack sufficient structural capacity to withstand impact forces. Consequently, strengthening and widening of the parapet plinths will be carried out to deliver the required resistance.

Deck Soffit Repairs: Significant spalling has been observed in the deck soffit, which has led to the exposure of reinforcement. This condition has the potential to compromise the structural integrity of the bridge. Therefore, repair works to the soffit are planned. The installation of the ICCP system will play a key role in limiting further deterioration of the structure.

Investigations for ICCP design:

A detailed concrete testing survey will be undertaken, including:

- Visual and hammer tapping survey of the entire deck soffit.
- Half-cell potential testing at 500mm x 500mm grid spacing to identify areas where further testing is required.
- Targeted concrete testing in localised areas, including:
 - Cover meter readings;
 - Chloride ion profiling;
 - Carbonation depth testing;
 - Surface resistivity testing; and
 - Concrete coring and testing (including cement content).

Parapet Replacement:

The parapet replacement works will include:

- Removing the existing aluminium parapets from both sides of the bridge and its wing walls.
- Hydro-demolishing sections of the parapet plinths and footpath.
- Installing new reinforcement and widening the parapet plinths.
- Preparing formwork and casting new concrete.
- Backfilling excavated areas and reinstating the footpath.

Deck Soffit Repair Works:

Soffit repairs will be carried out in stages. Each stage will consist of repairing a strip approximately 1.2m wide. The process includes:

- Hydro-demolition of approximately 65mm of existing concrete to expose corroded reinforcement.
- Reinforcement cleaning to remove surface corrosion.
- Installing additional reinforcement anchored into the slab, along with sacrificial anodes for corrosion protection.

- Applying spray-applied concrete to re-cover the reinforcement.
- Installing the ICCP system.
- Repeating the process until the full soffit area has been repaired.

Plant and Machinery Required:

- Excavator and concrete breaker
- High-pressure water jets for hydro demolition
- Water tank and pumps (silt buster)
- Concrete mixer and pump
- Hand-held tools for drilling
- Sprayed concrete equipment (Jet)
- Sampling tools and Ground Penetrating Radar (GPR) scanning equipment

The proposed works will be undertaken entirely beneath the existing structure. For the deck soffit repairs, the design proposal includes the installation of a temporary deck above the watercourse, which will provide a safe working platform and simultaneously protect the watercourse from potential construction impacts. In contrast, investigation works will be carried out from within the watercourse itself.

The investigation works start date remain dependent on the approval of the Marine Licence. Once confirmation is received, investigation works will commence and construction activities will flow and are expected to last approximately 4–6 weeks. These works may also require periods of nighttime working.

A single-file temporary traffic management (TM) arrangement will be in place for the duration of the works. This will restrict vehicles to a single running lane, with traffic passing the works area in alternating directions. Vehicle movements will be controlled by temporary traffic signals, which will manage the flow of traffic safely and efficiently by allowing one direction to proceed at a time.

As part of our standard pre-construction process, we have undertaken an environmental screening assessment to identify sensitive receptors near the works. This assessment has identified one residential property located next to the scheme extents. Appropriate mitigation measures will be implemented to minimise any potential effects.

We would appreciate your feedback at your earliest convenience, particularly regarding any areas of concern or additional information that may assist with the environmental assessment process.