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Environmental Impact Assessment Record of Determination

A985 Kincardine Bridge Maintenance Works FY25-26

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Project Details

Description

BEAR Scotland has been commissioned by Transport Scotland to undertake a programme of maintenance and improvement works on the A985 Kincardine Bridge over the 2025/2026 financial year. This Record of Determination (RoD) has been produced to cover the following schemes assessed to be relevant projects:

1. 50ft Span Deck Refurbishment and VRS

- The project brief consists of concrete repairs and refurbishment of the bridge deck above the 50ft concrete span. It will include re-waterproofing, drainage improvements, resurfacing of the bridge deck, expansion joint replacement, VRS replacement, parapet and lighting refurbishment, and pilaster repairs.

2. 50ft Span Concrete Repairs

- The project brief consists of concrete repairs in areas where deterioration has been identified, and the installation of a cathodic protection system to prevent future deterioration.

3. 50ft Span Bearing Replacement

- The project brief is to carry out replacement of the sliding bearings from the southern side of the Kincardine Bridge.

4. Kincardine Bridge Portal Gate Works

- The project brief is to carry out refurbishment of the existing pedestrian gates on the swing section of the bridge. Final design of this scheme is ongoing; however, it is likely that the pedestrian gates will be removed from the portals, refurbished, replaced and secured.

5. Northern Curved Steel Spans Refurbishment

- The project brief is to undertaken steel work repairs at the northern extents of the bridge. The works will involve the removal and repair of gusset plates, blasting and repainting of edge girders across Span 31, Span 32 and Span 33. The works may also involve the improvements to the existing road drainage.

6. Expansion Joint Replacements

- The project brief is to carry out partial replacements of the expansion joints along the bridge deck. The works will likely be undertaken in phases.

7. Asbestos Removal

- The project brief is to carry out removal of high-risk asbestos from the Control Room and Engine Room at the middle of the Kincardine Bridge.

The works are programmed to be completed within the 2025/2026 financial year with the first project expected to begin in September, however this is dependent on the issue of the Marine Licence. All works are currently programmed to utilise a daytime working pattern, however depending on network access restrictions some night works may be required.

The compound used during the Southern Piled Viaduct works to the southeast of the bridge at Higgins Neuk Roundabout has currently been retained the impacts of which are subject to a Record of Determination which is in review. Providing this is approved by Transport Scotland it will be utilised for schemes at the southern extents of the bridge. Work is ongoing to establish a compound to the north of the bridge, which will be covered separately from this RoD.

Where traffic management (TM) is required, it may involve carriageway closures, single lane closure and footway closures (for individual schemes see Annex B).

Location

All proposed schemes lie on the A985 Kincardine Bridge, which spans the Firth of Forth, connecting Kincardine to Falkirk and Grangemouth (Figure 1.).

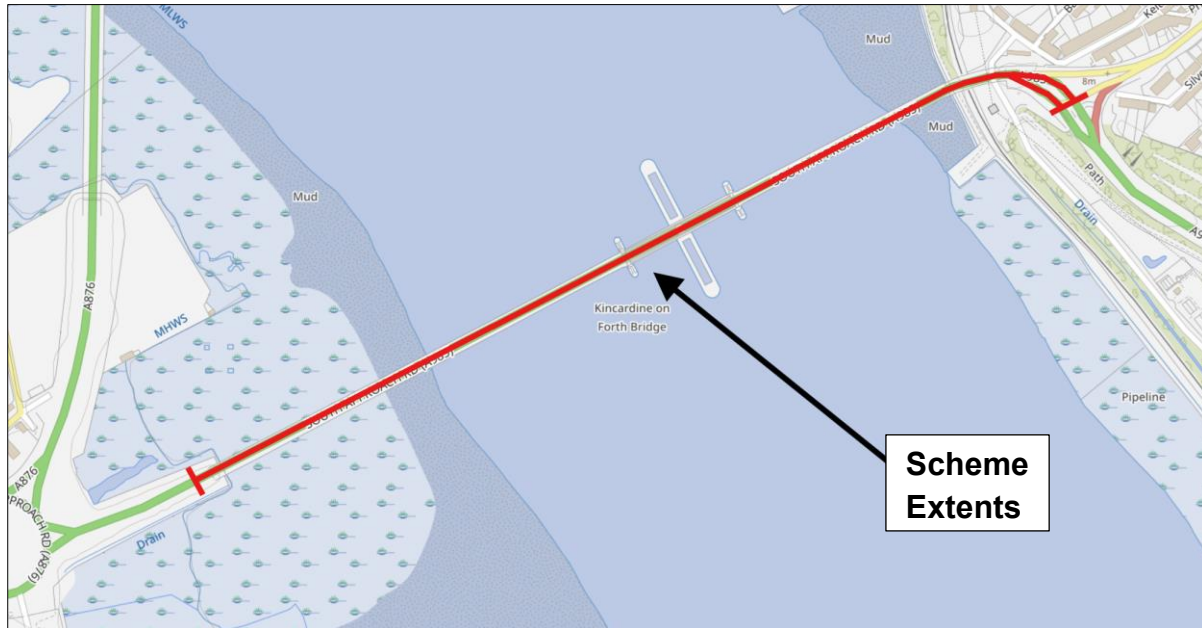


Figure 1. Extents of the Works. - Source: Asset Management Performance System (AMPS). © Europa Technologies Ltd. Contains Ordnance Survey data © Crown copyright and database right 2018.

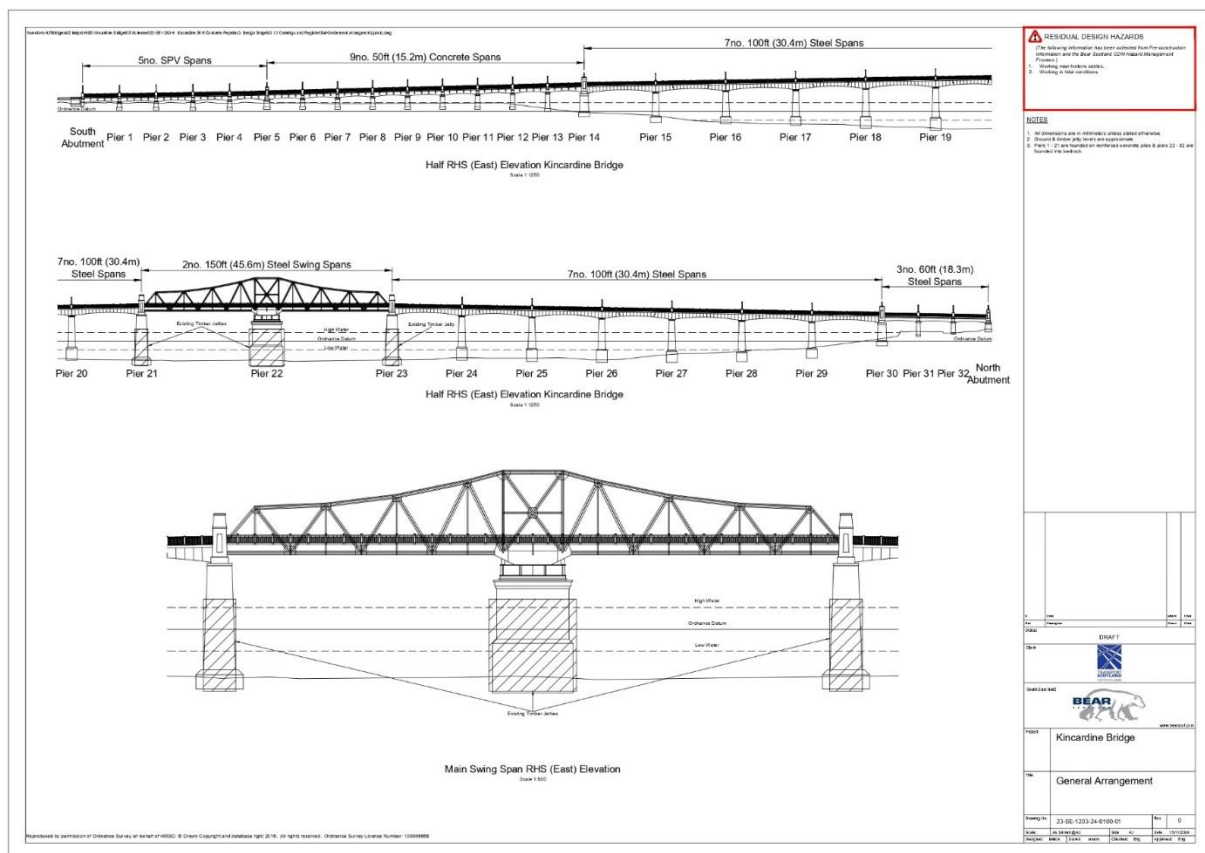


Figure 2. Overview of Kincardine Bridge Arrangement. - Source: Asset Management Performance System (AMPS). © Europa Technologies Ltd. Contains Ordnance Survey data © Crown copyright and database right 2018.

Description of local environment

Air quality

For properties within 300m of the scheme refer to “Population and Human Health”.

A search of the [Air Quality in Scotland](#) online mapping tool records that air quality in the wider bandings to be within the ‘green zone’ (Low Index 1-3).

The Kincardine Bridge is located within both Falkirk Council and Fife Council, who report one [Air Quality Management Area \(AQMA\)](#) and no AQMAs within their administrative boundaries respectively. The closest AQMA lies within the Falkirk Council boundary. The “Falkirk Town Centre” AQMA lies approximately 7.25km south of the closest scheme extents and is declared for nitrogen dioxide (NO₂) and particulate matter <10 microns in diameter (PM₁₀).

There are twenty sites registered on the Scottish Pollutant Release Inventory ([SPRI](#)) for air pollutant releases in the last 10 years, within 10km of the Kincardine Bridge:

- “Avondale Non-Hazardous Landfill, Polmont” – Waste and waste-water management – declared for carbon dioxide, carbon monoxide, chlorofluorocarbons (CFCs), formaldehyde, hydrochlorofluorocarbons (HCFCs), methane, nitrogen oxides (NO and NO₂ as NO₂), PM₁₀, tetrachloroethane, toluene.
- “Bakelite Synthetics UK Ltd, Cowie” – Chemical industry – declared for formaldehyde.
- “Black Devon Landfill Site, Alloa” – Waste and waste-water management – declared for methane.
- “CHP Plant, Earls Road, Grangemouth” – Energy sector – declared for carbon dioxide
- “Cowiehall Quarry, Stirling” – Mineral industry – declared for PM₁₀
- “Falkirk STW, Abbots Road, Falkirk” – Waste and waste-water management – declared for methane.
- “Grangemouth Chemical Plant” – Chemical industry – declared for ethylbenzene, NMVOCs, toluene, and xylene (all isomers).
- “Grangemouth CHP, Boness Road, Grangemouth” – Energy sector – declared for carbon dioxide, and nitrogen oxides (NO and NO₂ as NO₂).
- “Grangemouth Refinery” – Energy sector – declared for ammonia, antimony, arsenic, benzene, butadiene, cadmium, carbon dioxide, carbon monoxide, copper, HCFCs, HFCs, lead, manganese, mercury, methane, nickel, nitrogen oxides (NO and NO₂ as NO₂), NMVOCs, PM₁₀, particulate matter (total),

sulphur oxides (SO₂ and SO₃ as SO₂), tetrachloroethylene, toluene, vanadium, xylene (all isomers), and zinc.

- “Helensfield Poultry Farm, Clackmannan, Alloa” – Intensive livestock production and aquaculture – declared for ammonia
- “INEOS Chemicals Grangemouth Ltd, Grangemouth” – Chemical industry - declared for benzene, butadiene, carbon dioxide, carbon monoxide, HCFCs, hydrofluorocarbons (HFCs), methane, nitrogen oxides (NO and NO₂ as NO₂), NMVOCs, particulate matter (PM₁₀ and smaller), and toluene.
- “INEOS FPS Ltd., Kinneil Terminal Grangemouth” – Energy sector – declared for carbon dioxide, carbon monoxide, HCFCs, methane, nitrogen oxides (NO and NO₂ as NO₂), non-methane volatile organic compounds (NMVOCs), and sulphur oxides (SO₂ and SO₃ as SO₂).
- “INEOS Infrastructure (Grangemouth) Ltd.” – Energy sector – declared for carbon dioxide, carbon monoxide, methane, nitrogen oxides (NO and NO₂ as NO₂), PM₁₀, and sulphur oxides (SO₂ and SO₃ as SO₂).
- “Longannet PS, Kincardine, Alloa” – Energy Sector – declared for antimony, arsenic, benzo(a) pyrene, cadmium, carbon dioxide, carbon monoxide, chlorine and total inorganic chlorine compounds (as HCl), chromium, copper, dioxins and furans (as ITEQ), dioxins and furans (as WHO TEQ), fluorine and total inorganic fluorine compounds (as HF), lead, manganese, mercury, methane, naphthalene, nickel, nitrogen oxides (NO and NO₂ as NO₂), nitrous oxide, NMVOCs, PM₁₀, particulate matter (total), polychlorinated biphenyls (PAHs) (four indicator compounds of LRTAP), selenium, sulphur oxides (SO₂ and SO₃ as SO₂), vanadium, and zinc.
- “O-I Manufacturing UK Ltd Glasshouse Loan Allo” – Mineral industry – declared for antimony, arsenic, cadmium, carbon dioxide, chlorine and total inorganic chlorine compounds (as HF), lead, nickel, nitrogen oxides (NO and NO₂ as NO₂), selenium, sulphur oxides (SO₂ and SO₃ as SO₂).
- “Paterson Quarrie, Burrownie Moor Quarry, Alloa” – Mineral industry – declared for PM₁₀.
- “Station Road, Cowie” – Paper and wood production and processing – declared for antimony, arsenic, cadmium, carbon dioxide, carbon monoxide, chromium, copper, dioxins and furans (as ITEQ), dioxins and furans (as WHO TEQ), formaldehyde, lead, manganese, mercury, nickel, nitrogen oxides (NO and NO₂ as NO₂), NMVOCs, particulate matter (total).
- “Syngenta, Grangemouth Man Centre, Grangemouth” – Chemical industry – declared for chloroform, dioxane, HFCs, methanol, methyl chloride, NMVOCs, and toluene.
- “Tulliallan Poultry Farm, Kincardine, By Alloa” – Intensive livestock production and aquaculture – declared for ammonia
- “Versalis UK Ltd, Grangemouth” – Chemical industry – declared for butadiene, carbon dioxide, NMVOCs, and styrene.

The closest of these is “Longannet PS, Kincardine, Alloa”, which is located approximately 2.9km southeast of Kincardine Bridge.

Baseline air quality within the scheme extents is likely to be primarily influenced by traffic along the A985 carriageway. Secondary sources are most commonly derived from motor vehicles travelling along the adjacent A876, other local network roads within Kincardine and day-to-day agricultural land management and marine industrial activities.

Cultural heritage

The [PastMap](#) and [Historic Environment Scotland](#) (HES) online mapping tools records several designated cultural heritage assets within 300m of the schemes. The “Kincardine” Conservation Area ([CA](#)) partially overlaps with the northern side of the Kincardine Bridge.

There are approximately 47 listed buildings within 300m of the schemes. The Kincardine Bridge itself is a Category A listed building ([LB50078](#)). Of the remaining 46 listed buildings, the closest is “Ye Olde House 25, 26 Forth Street Kincardine-On-Forth”, a Category B listed building ([LB16598](#)) located approximately 15m north of the Kincardine Bridge.

Of lesser concern, there are approximately 142 undesigned cultural heritage assets (UCHAs) within 300m of the schemes. Of these, five are located within the extents of the Kincardine Bridge. These are:

- “Kincardine, Kincardine Bridge” Canmore site (ID: 361631) which is located to the northeast side of the bridge.
- “Kincardine On Forth Bridge” Canmore site (ID: [48119](#)) which is located centrally within the scheme extents.
- “Kincardine Bridge” Canmore site (ID: [381077](#)) which is located directly adjacent to the north of the bridge, towards the southern end of the scheme extents.
- “Kincardine Bridge” Canmore site (ID: [365160](#)) which is located within the scheme extents at the southern end of the bridge.
- “Unknown: Kincardine Foreshore, River Forth” Canmore Maritime site (ID: [147378](#)) which is located at the far southern end of the scheme extents.

The remaining UCHAs lie outwith the Kincardine Bridge.

Construction of the Kincardine Bridge road corridor is likely to have removed any archaeological remains that may have been present within the trunk road boundary.

The potential for the presence of unknown archaeological remains in the study area has therefore been assessed to be low.

Landscape and visual effects

None of the schemes are situated within a [National Park](#) (NP) or [National Scenic Area](#) (NSA).

The [Landscape Character Type \(LCT\)](#) at the northern end of the Kincardine Bridge is categorised as “Coastal Flats – Fife” ([LCT 196](#)), while the LCT at the southern end of the Kincardine Bridge is categorised as “Carselands” ([LCT 153](#)).

“Coastal Flats – Fife” is characterised by:

- Flat, low-lying, open, large scale exposed coastal landscapes at sea level.
- Intensively cultivated, geometrically laid out, large to medium scale, predominantly arable fields or forests with rectilinear, fenced enclosures or without enclosure.
- Variety of other land uses, particularly industrial and other built developments, golf courses and other grasslands.
- Slightly sinuous or angular roads raised above the fields with stone dykes or open sides.
- Isolated, scattered or regularly spaced farmsteads, conspicuous due to lack of screening, in contrast to the designed landscapes which are well screened by policy planting and shelterbelts.
- Straight ditches, sea walls and flood banks with small bridges.
- Conspicuous landmarks in the flat landscape, such as the large hotels at St Andrews, docks and harbours.
- Coastal landscape character always influenced by the sea and views of the sky and the sea.
- Typically dominated either by the areas of development or the coast.
- Away from the urban areas and forestry it is a large scale, open (and in high winds very exposed), simple, flat, balanced landscape with varied textures and colours and slow movement.
- In the plantations it is a small scale, confined, uniform, tended, very calm and sheltered landscape with straight lines, simple patterns and little variation in colours or textures.
- Seaward views are invariably extensive and may be extensive across the Flats themselves. Landward, views are generally towards the Coastal Cliffs, Coastal Braes, Coastal Hills - Fife or Coastal Terraces - Fife.

“Carselands” is characterised by:

- Flat, open, large scale Carselands of predominantly open agricultural landcover forming the floor and former floodplains of the River Forth, River Devon and Black Devon.
- Important as landscape setting of Stirling, Stirling Castle, and the Ochil Hills.
- Absence of settlement across the Carselands, restricted to villages on the peripheral slopes and scattered farmsteads along the valley floors.
- Periodic extensive flooding continues to influence land use.
- Trunk roads run in parallel to the northern and southern perimeters of the Carselands.
- Distinct character of group of Hillfoot villages, and their relationship with streams issuing from Ochil Hills within Lower Devon area, as well as major overhead power lines and their pylons.
- Recent expansion of settlement boundaries at edge of carse making new development very visible.
- Industrial and agricultural buildings, and bonded warehouse on open carseland prominent in views within Lower Devon area
- Largest remaining intact raised bog in Britain at Flanders Moss, with international importance for nature conservation.
- Open views across carse accentuated by consequent dramatic contrast with the adjacent escarpments of the Ochils and Fintry, Gargunnock and Touch Hills.

The Historic Land-use Assessment ([HLA](#)) classifies the land-use within 300m of the Kincardine Bridge as:

- Rough Grazing,
- Rectilinear Fields and Farms,
- Motorway and Major Roads,
- Urban Area, and
- Medieval Town.

The [national capability for agriculture](#) classifies land surrounding the scheme as being “Class 3.2” at the northern end of the Kincardine Bridge, and “Class 5.2” at the southern end of the Kincardine Bridge. “Class 3.2” indicates land capable of average production though high yields of barley, oats and grass can be obtained. Grass leys are common. “Class 5.2” indicates land capable of use as improved grassland. Few problems with pasture establishment but may be difficult to maintain.

There are no areas of woodland listed on the [Ancient Woodland Inventory](#) within 300m of the Kincardine Bridge.

There is one area of native woodland within 300m of the Kincardine Bridge recorded on the [Native Woodland Survey of Scotland](#). This area of woodland connects with an

area of shrubland/woodland which is spanned by the northern extents of the Kincardine Bridge. It is characterised as an area of young lowland mixed deciduous woodland which is approximately 0.6ha. It is located approximately 225m north of the Kincardine Bridge.

There are areas of shrubland on both the north and south sides of the Kincardine Bridge. The area to the south of the bridge consists of relatively sparse semi-mature shrubland which borders the A985 and A876 within the immediate surroundings of the scheme extents. The area to the north of the Kincardine Bridge consists of much more dense semi-mature shrubland bordering both the A985 carriageway and the railway line which passes below the scheme extents.

There are no trees or areas of woodland specifically protected by a Tree Preservation Order within 300m of the Kincardine Bridge ([TPO Map](#)). However, all trees with a trunk diameter >75mm are protected within [Fife Council Conservation Areas](#), such as the Kincardine Conservation Area located to the north of the bridge.

The Kincardine Bridge lies above a transitional waterbody, with land use at the bridge foundations at the northern and southern extents dominated by agricultural land, transport infrastructure and urban development. The Kincardine Bridge itself, given its historic and listed status is a prominent landscape feature. Views from the bridge are dominated by the Forth Estuary and its coastline.

Biodiversity

The Kincardine Bridge spans the Firth of Forth Special Protection Area (SPA) and Ramsar Site within the southern extents of the bridge and has hydrological connectivity with the River Teith Special Area of Conservation (SAC), which is located approx. 20km upstream.

There are no other European Sites designated for nature conservation i.e. SPAs, SACs, or Ramsar Sites, located within 2km of, or which share connectivity with the scheme extents.

The Kincardine Bridge also spans the Firth of Forth Site of Special Scientific Interest (SSSI) (Site Code: [8163](#)) with the southern extents of the bridge.

The Royal Society for the Protection of Birds (RSPB) Skinflats Nature Reserve is located approx. 370m southeast of the compound at the southern extents of the scheme.

The scheme lies adjacent to the “Pow Burn and Estuary Wildlife Site” Local Nature Conservation Site ([LNCS](#)). The LNCS is located adjacent to the northbound

carriageway at the southern side of the Kincardine Bridge. The site is designated for its saltmarsh habitats and associated flora.

The NBN atlas also holds records of numerous bird species within 2km over a ten-year period. Under the Wildlife and Countryside Act 1981 (as amended) (WCA), all wild birds and their active nests are protected.

A search of the NBN online mapping tool records the following plant species as listed within the Network Management Contract (NMC) within 2km of the schemes (within the last 10-years):

One invasive non-native species (INNS):

- Japanese knotweed (*Reynoutria japonica*).

Four injurious weeds:

- Broad-leaved dock (*Rumex obtusifolius*),
- Creeping thistle (*Cirsium arvense*),
- Curled dock (*Rumex crispus*),
- Spear thistle (*Cirsium vulgare*).

No instances of invasive native perennials were recorded.

The closest of these records to the scheme extents relates to that of creeping thistle, located approximately 110m north of the Kincardine Bridge.

A search of the Asset Performance Management System (AMPS) online mapping tool records no invasive or injurious plant species within any of the scheme extents.

The Firth of Forth consists of a wide range of coastal and intertidal habitats, including saltmarshes, dune systems, maritime grasslands, heath and fen, cliff slopes, shingle and brackish lagoons. Extensive mudflats occur particularly in the inner Forth estuary, notably at Skinflats, Bo'ness, Culross and Torry Bay. These mudflats support a range of invertebrate fauna and may support species of intertidal seagrass (*Zostera spp.*) growing on the mudflats. However, the ecological habitat potential in and around the Kincardine Bridge may be somewhat reduced due to a range of anthropogenic pressures, for example, the Grangemouth industrial complex lies approximately 4.5km south of the bridge.

Ecology Surveys Undertaken by Jacobs in Support of the Environmental Impact Assessment (EIA) for Southern Piled Viaduct (SPV)

As part of the replacement of the Kincardine SPV, surveys were conducted by Jacobs to compile an EIA. These surveys consisted of a potential roost assessment (PRA) of the Kincardine Bridge and any trees or structures within 50m of those works, as well as a preliminary ecological appraisal (PEA) of the surrounding area.

Habitats surrounding the southern extents of the bridge were classified as large areas of saltmarsh with a narrow band of mudflats and semi-improved neutral grassland present along verges adjacent to the road and Sustainable urban Drainage System (SuDS) pond. Within the northern extents of the bridge the surrounding habitat consists of a narrow band of mudflats, a small strip of amenity grassland associated with a footpath and small areas of broadleaved woodland to the southeast. The saltmarsh habitats at the southern have been classified as being of national importance. While the mudflats around Kincardine contribute to a complex of habitats supporting a number of bird species those directly adjacent to the bridge are limited and not considered to provide important habitat.

BEAR Survey

An ecological constraints survey (ECS) was conducted by BEAR Scotland on the 1st of May 2025. It included a walkover survey of the habitat within 200m of the Kincardine Bridge, including the Sustainable Urban Drainage System (SuDS) pond which lies approximately 200m southwest of the scheme extents at its closest point.

The habitat surrounding the Kincardine Bridge is primarily the Upper Forth Estuary. This is a transitional waterbody which is a key habitat for a number of bird species, as well as several anadromous fish species. The southern shore of the Forth estuary features a large saltmarsh which is part of the Firth of Forth SPA, Ramsar Site, and SSSI. There are also small mudflats present on both the north and south shores. Terrestrial habitat within the vicinity of the bridge consists primarily of agricultural land on the southern side, and the town of Kincardine on the north side. The north side also features some semi-mature woodland which borders the railway line and footpaths which lie to the southeast of the bridge.

Geology and soils

The Firth of Forth SSSI (Site Code 169840), which is noted for its biological and geological features is spanned by the Kincardine Bridge. Firth of Forth SSSI is important for the wide range of geology that can be found in the Firth west of the

three bridges where the coastline is rockier. The SSSI geological and geomorphological diversity includes an array of recorded fossil deposits, volcanic rocks, minerals, strata exposures and raised beaches, and is notified for:

- Lower Carboniferous [Dinantian – Namurian part]],
- Upper Carboniferous [Namurian (part) - Westphalian],
- Carboniferous – Permian Igneous,
- Mineralogy of Scotland,
- Arthropoda (excluding insects & trilobites),
- Palaeozoic Palaeobotany,
- Permian - Carboniferous Fish/Amphibia,
- Quaternary of Scotland,
- Coastal Geomorphology of Scotland.

There are no other geological SSSIs or Geological Conservation Review Sites within 300m of the bridge ([SiteLink](#)). Additionally, there are no [Local Geodiversity Sites](#) (LGS) within 300m, or which share connectivity to any of the schemes.

The [Scotlands's Soils](#) online mapping tool records the generalised and major soil type in the southern end of the bridge as alluvial soils. The soils to the northern end of the bridge are classified as noncalcareous gleys.

The [British Geological Survey](#) online mapping tool records bedrock geology within the extents of Kincardine Bridge:

- Scottish Lower Coal Measures Formation - Sedimentary rock cycles, coal measure type.
- Passage Formation - Sedimentary rock cycles, Clackmannan group type.

With superficial deposits of:

- Reclaimed Intertidal Deposits - Silt and clay.
- Raised Tidal Flat Deposits of Holocene Age - Silt and clay.

There is no evidence of historical industrial processes or the storage of hazardous materials that could have given rise to significant land contamination.

Material assets and waste

The proposed works consist of seven different projects.

The primary materials to be used are expected to be, but not limited to:

- Steel items such as bearings, expansion joints, VRS, parapets etc.,
- Bitumen bearings,
- Concrete,
- Waterproofing,
- Surface course,
- Binder,
- Base,
- Lamps,
- Kerb drainage,
- Sacrificial anodes,
- Asbestos containing material,
- Replacement cable insulation.

Where the value of an individual scheme is greater than £350,000, a Site Waste Management Plan (SWMP) will be required for the works.

The main wastes produced across all seven projects will consist, of but are not limited to:

- Steel (bearings, joints, VRS, parapets etc.) (European Waste Catalogue (EWC) Code: 17 04 05).
- Concrete, including kerbs and deck drainage (EWC Code: 17 01 01).
- Bituminous material (EWC Code: 17 03 02) none of which is classified as hazardous material containing coal tar.
- Asbestos – primarily white asbestos (Chrysotile), with some blue asbestos (Crocidolite) (EWC Code: 17 06 01 and 17 06 05).

Where possible wastes will be cleaned and reused on site or removed to a licensed facility.

Noise and vibration

The works do not fall within a candidate noise management area (CNMA) as defined by the Transportation Noise Action Plan ([TNAP](#)).

The day-time modelled noise level ([Lden](#)) and night time modelling (LNGT) for the carriageway along the Kindcardine Bridge ranges from 55 to 70 decibels (dB) with levels decreasing to between 50 and 60db at the nearest noise sensitive receptor (residential).

Baseline noise and vibration in the study area is mainly influenced by vehicles traveling along the A985 trunk road. Secondary sources are derived from vehicles

travelling along the adjacent A876, other nearby local network roads and from the railway which passes below the north side of the Kincardine Bridge.

Population and human health

There are numerous residential and commercial properties within 300m of the Kincardine Bridge. The closest of these is a disused property located approximately 12m north of the scheme extents. The closest residential property is located approximately 22m northeast of the Kincardine Bridge. It receives minimal screening from the scheme extents as there are clear lines of sight to the property. Several other properties in the immediate vicinity of the northern end of the scheme extents also receive minimal or no screening from the scheme extents. Of note, “Kincardine Health Centre” GP practice is located approximately 285m north of the scheme extents.

There are footpaths located on either side of the A985 carriageway for the full length of the scheme extents. Additionally there are four core paths within 300m of the scheme extents, one [Falkirk Council Core Path](#), and three [Fife Council Core Paths](#). Their details are:

- Falkirk Council Core Path 010 “Airth”, which is located within the scheme extents on the southern side of the bridge.
- Fife Council Core Path P746/06 which passes below the scheme extents at the northern side of the bridge.
- Fife Council Core Path P758/01 which is located approximately 25m south of the scheme extents at its closest point and connects to P746/06.
- Fife Council Core Path P758/02 which is located approximately 35m south of the scheme extents at its closest point and connects to P746/06.

The Fife Coastal Path is also located within 300m of the Kincardine bridge. Section 1 of the Fife Coastal Path begins approximately 35m south of the northern side of the bridge and overlaps with Core Path P758/01 within the vicinity of the scheme extents.

Additionally, National Cycle Network (NCN) Route 76 lies within 300m of the Kincardine Bridge. It overlaps with both Core Path P746/06 and P758/01.

The Kincardine Bridge is street lit over its full length.

The Kincardine Bridge is a single carriageway with a speed limit of 30mph applying throughout. The Annual Average Daily Flow (AADF) is moderate (11,644 motor vehicles (ID: [81308](#), 2024 data)) ([Road Traffic Statistics](#)) and is comprised of:

- 32 pedal cycles,
- 40 two-wheeled motor vehicles,
- 8482 cars and taxis,
- 75 bus and coaches,
- 2262 Light Goods Vehicles (LGVs), and
- 785 Heavy Goods Vehicles (HGVs).

Road drainage and the water environment

There are two [SEPA](#) classified surface waterbodies within 300m of the scheme extents:

- “Upper Forth Estuary” (ID: 200437) is a transitional waterbody with an area of approximately 9.7km². It passes below the Kincardine Bridge within the scheme extents. It was given an overall classification of “Moderate ecological potential” by SEPA in 2023.
- “Middle Forth Estuary” (ID: 200436) is a transitional waterbody with an area of approximately 38.2km². It is located approximately 15m south of the scheme extents at its closest point and lies downstream of the waterbody which passes below the scheme extents. It was given an overall classification of “Moderate ecological potential” by SEPA in 2023.

There are seven unclassified waterbodies within 300m of the scheme extents. They are:

- “Drain 1”, a drainage waterbody located approximately 15m south of the scheme extents at the southern side of the bridge and drains into the Forth Estuary.
- “Drain 2”, a drainage waterbody located approximately 70m south of the scheme extents at its closest point and drains into the Forth Estuary.
- “Pond 2”, a pond located approximately 150m southeast of the scheme extents at its closest point and drains into the Forth Estuary.
- “Drain 3”, a drainage waterbody located approximately 150m north of the scheme extents at its closest point and drains into the Forth Estuary.
- “SuDS Pond”, a drainage pond located approximately 200m southwest of the scheme extents at its closest point and drains into the Forth Estuary.
- “Drain 4”, a drainage waterbody located approximately 285m north of the scheme extents at its closest point and is likely to drain into Pow Burn which then outfalls to the Forth Estuary or directly into the Forth Estuary.
- “Drain 5”, a drainage waterbody located approximately 295m southwest of the scheme extents at its closest point. It drains into the SuDS pond.

In addition, there are a number of saltmarsh creeks, some of which have been modified / straightened, within the surrounding land at the southern extents of the bridge which are largely dominated by tidal processes.

A search of the [SEPA Flood Map](#) online mapping tool shows that there are no areas of increased surface water flood risk throughout the scheme extents.

The scheme extents lie within the “Airth” (ID: 150441) and “Alloa” (ID: 150536) groundwater bodies. Both were given an overall status of “Poor” by SEPA in 2023 and both have Drinking Water Protected Areas ([SEPA](#)).

A search of the [Scotland's Environment \(SE\)](#) determined that the trunk road, within the scheme extents, do not lie within a Nitrate Vulnerable Zone (NVZ).

Climate

The [Climate Change \(Scotland\) Act 2009](#) ('The Act'), and its subsequent amendment under the [Climate Change \(Emissions Reduction Targets\) \(Scotland\) Act 2019](#), sets the framework for the Scottish Government to address climate change. The Act has an ambitious target to reach Net Zero greenhouse gas emissions by 2045, with any residual emissions balanced by removing carbon dioxide from the atmosphere. This is five years earlier than the rest of the UK due to the greater potential for carbon sequestration in Scotland.

The Act was amended to replace interim targets with carbon budgets. Carbon budgets are legally binding caps on greenhouse gas emissions in Scotland over five-year periods. In line with the Act, the Climate Change Committee (CCC) published advice on the level of Scotland's four carbon budgets, covering the period 2026 to 2045, recommending what the Scottish Government sets its carbon budgets at for annual average levels of emissions. These recommendations are based on an ambitious but credible route to Net Zero for Scotland by 2045.

Emissions reductions from surface transport are the largest contribution to meeting the first two carbon budgets. The pathway for surface transport emission reduction is primarily driven by the uptake of electric vehicles, in addition to measures to enable a shift from car use to public transport and active travel, which all play a role in reducing emissions from fossil fuel cars. Ensuring efficiency of existing transport infrastructure and improving/providing new active travel facilities is therefore important to support these carbon reduction budgets.

Transport is the largest contributor to harmful climate emissions in Scotland. In response to the climate emergency, Transport Scotland are committed to reducing their emissions by 75% by 2030 and to the above noted legally binding target of net-

zero by 2045. Transport Scotland is committed to reducing carbon across Scotland's transport network and this commitment is being enacted through the Mission Zero for Transport ([Mission Zero for transport | Transport Scotland](#)).

Policies and plans

This Record of Determination has been undertaken in accordance with all relevant regulations, guidance, policies and plans, notably including the Environment and Sustainability Discipline of the Design Manual for Roads and Bridges ([Design Manual for Roads and Bridges \(DMRB\)](#)) and Transport Scotland's Environmental Impact Assessment Guidance ([Guidance - Environmental Impact Assessments for road projects](#)).

Description of main environmental impacts and proposed mitigation

Air quality

During the construction phase of each scheme, activities undertaken on site could potentially have some minor localised and short-term air quality impacts in proximity to the works. The construction phases will, for example, require a range of ancillary plant, vehicles, and non-road mobile machinery (NRMM) which could contribute to local dust and air pollutants. As a result, there is potential for impacts to local air quality.

However, a large proportion of the schemes will be undertaken primarily using hand tools with limited potential for impacts to air quality. Moreover, the impacts will be further reduced on those projects situated below the bridge deck where there is no requirement for TM, as vehicle idling time will be reduced. Additionally, schemes associated with asbestos removal will be contained within the existing engine / control room limiting the potential for impacts to local air quality.

Therefore, considering the nature of the individual schemes, along with implementation of mitigation detailed below, the proposed works' impacts on local air quality levels during the construction period are assessed to be temporary, negligible adverse in magnitude.

Upon completion of the works, no residual air quality impacts are anticipated.

Air quality mitigation measures:

- Where above deck schemes are undertaken, the carriageway will be swept after dust-generating activities, and waste will be contained and removed from site as soon as is practicable. For resurfacing works, a water-assisted dust sweeper will be used.
- Any works requiring shot-blasting will be fully encapsulated within a containment area, reducing the risk of materials entering the air. In addition, any shot-blasting detritus and spent grit / shot will be covered prior to disposal.
- Appropriate measures will be implemented by specialist contractors during the asbestos removal scheme to ensure all asbestos material and dust is contained.
- Ancillary plant, vehicles and NRMM will have been regularly maintained, paying attention to the integrity of exhaust systems.

- Ancillary plant, vehicles and NRMM will be switched off when stationary to prevent exhaust emissions (e.g., there will be no idling vehicles).
- Materials that have a potential to produce dust will be removed from site as soon as possible, and vehicles that remove cold-milled material from site will have sheeted covers.
- Cutting, grinding, and sawing equipment (where required) will be fitted or used in conjunction with suitable dust suppression techniques e.g., local exhaust ventilation system that fits directly onto tools.
- Regular monitoring (e.g., by engineer or Clerk of Works) will take place when activities that have the potential to impact local air quality are occurring. In the unlikely event that unacceptable dust or exhaust emissions are emanating from the site, the operation will, where practicable, be modified and re-checked to verify that the corrective action has been effective. Actions to be considered include: (a) minimising cutting and grinding on-site, (b) reducing the operating hours, (c) changing the method of working, etc.

Cultural heritage

Given that the Kincardine Bridge is a Category A Listed Building, construction works and any alterations to the bridge are likely to require Listed Building Consent. Listed Building Consent Reference No. P/20/0595/LBC was granted by Falkirk Council in February 2021 for a number of projects on the Kincardine Bridge which included the Southern Piled Viaduct scheme along with a variety of maintenance and improvement activities. Schemes assessed within this RoD which are included within the LBC include: 50ft Span Deck Refurbishment and VRS, 50ft Span Concrete Repairs; 50ft Span Bearing Replacement, Northern Curved Steel Span Refurbishment and Expansion Joint Replacements. Recent consultation, undertaken in June 2025, with Falkirk Council has confirmed that the existing consent remains valid for these works.

Any works undertaken out with the above i.e. Gate Works, replacement of lighting, and Asbestos Removal will require further consultation with both Falkirk Council and Fife Council.

While the Northern Curved Steel Refurbishment scheme is located within the Kincardine CA, the works are situated below the bridge and will include the like for like repairs / replacement and as such will not have any potential for impact upon the historic character of the CA.

People, ancillary plant, vehicles, NRMM and materials will be restricted to areas of made ground on the Kincardine Bridge. As such, there is no potential for impacts to any other listed buildings, the closest of which is located approximately 15m north of the scheme extents.

Most of the schemes are located on the raised structure of the Kincardine Bridge. As such, there is no potential to impact upon any unknown archaeological remains as there will be no excavations to ground conditions. While some of the schemes require a compound most will be located within the lay down area at the south side of the bridge, no excavations will be required to facilitate this compound as it has recently been in use as part of the SPV works. Therefore, the potential for the presence of unknown archaeological remains in the study area has been assessed to be low.

With the implementation of mitigation detailed below, the proposed works impacts on cultural heritage during the construction period are assessed to be negligible in magnitude.

Upon completion of the works, no residual impacts on cultural heritage are anticipated.

Proposed cultural heritage mitigation measures:

- Site personnel will be made aware of the sensitivity of the “Kincardine Bridge” Category A Listed Building.
- Care will be undertaken during the works to ensure that no damage occurs to the bridge and that the works are undertaken in line with the LBC ensuring the historic character of the bridge is maintained.
- Site personnel will be made aware of the location and sensitivity of the “Kincardine” CA.
- Further consultation and where required, consent, will be undertaken with Falkirk Council and Fife Council for any schemes not included within the existing LBC.
- Access outwith the existing carriageway within the boundary of the CA will be limited as far as practicable. No plant, equipment or materials will be stored within any area of soft verge within the CA. In the event there is a requirement for excavation within this area, BEAR Scotland’s Environment Team will be notified as soon as possible to allow for consultation with Fife Council / Historic Environment Scotland.
- People, ancillary plant, vehicles, NRMM and materials will be restricted to the areas of made/engineered structure of the Kincardine Bridge and land immediately adjacent to the northern and southern spans. Where access out with the made/engineered structure is required for the safe and effective completion of the scheme, the area will be reduced as much as is reasonably practicable and ideally will be accessed on foot.

Landscape and visual effects

There will be a short-term impact on the landscape character and visual amenity of the site as a result of the presence of construction plant, vehicles, and TM (where necessary) during the schemes.

However, people, ancillary plant, vehicles, NRMM and materials will be restricted to areas of made/engineered ground on the Kincardine Bridge or the immediate surrounding area. Additionally, where schemes are located on the underside of the Kincardine Bridge (such as for the 50ft Span Concrete Repairs, and 50ft Span Bearing Replacement), the works will not be visible from carriageway level, and only an obscured view of the works will be evident from the shoreline or water. Moreover, the impacts will be further reduced on those projects where there is no requirement for TM.

Considering the nature, duration, size, and scale of the schemes, and with implementation of mitigation detailed below, impacts on landscape and visual effects are assessed as temporary, negligible adverse in magnitude.

Upon completion of the works, no residual impacts on landscape and visual effects are anticipated e.g., when complete the visual appearance will remain largely unaffected, with a renewed bridge deck / VRS being the only discernible change.

Landscape and visual effects mitigation measures:

- The site will be monitored regularly for signs of litter and other potential contaminants, and litter will be removed before and after works take place.
- The site will be left clean and tidy following construction.

Biodiversity

As the Kincardine Bridge spans the Upper Forth Estuary, within the Mean High-Water Springs (MHWS), a Marine Licence is required under Part 4 of the Marine (Scotland) Act 2010 and Part 4 of the Marine and Coastal Access Act 2009. A seven-year Marine Licence application was submitted to the Marine Directorate on 23rd April 2025. The application, as submitted included a Habitats Regulations Appraisal (HRA) of all projects scheduled to be undertaken on the Kincardine Bridge within the MHWS over the seven-year period. The list of schemes approved included in the Marine Licence include the projects being considered within this RoD. The HRA Screening concluded that the proposed works had the potential to result in Likely Significant Effects (LSE) to some of the qualifying features of the Firth of Forth SPA and Ramsar Site, and River Teith SAC and as such an Appropriate Assessment (AA) was undertaken. The AA concluded that with mitigation measures

implemented there will be no adverse effects on site integrity for any of the qualifying features of Firth of Forth SPA and Ramsar sites or for the River Teith SAC for the seven-year duration.

The scheme is located within the Firth of Forth SSSI at the southern side of the bridge. There is potential for some schemes, namely 50ft Span Bearing Replacement, to take place over the winter period within the SSSI. NatureScot will be consulted with to obtain SSSI consent to allow the works to proceed. Mitigation measures will be implemented during these works in line with the granted Marine Licence, HRA, SSSI consent, and associated plans which will minimise the likelihood of any impacts to the features of the SSSI.

The 50ft Span Concrete Repairs and 50ft Span Bearing Replacement will require access across the saltmarsh to facilitate these schemes. A 2.99ha section of saltmarsh was temporarily impacted upon during the SPV works which is now subject to a habitat restoration and monitoring programme over the next five years. Access to the 50ft Span below deck works will require a small section to be impacted upon within the 2.99ha area, as such this will result in the continued loss of this area of saltmarsh. In addition, saltmarsh communities are identified as being highly sensitive to hydrocarbon pollution as they trap sediments, absorb oil and occur in sheltered places where oil persists as such, unmitigated there is potential for further damage to the saltmarsh out with the access track. Surveys undertaken by Jacobs have confirmed that the area of saltmarsh most frequently used by qualifying features of the SPA / Ramsar lies to the south of the Kincardine Bridge as such habitat loss / fragmentation was not considered to have the potential to impact the conservation objectives of any qualifying species. Nevertheless, this saltmarsh is considered to be of national importance and strict adherence to mitigation measures and implementation of the Saltmarsh Management Plan will ensure that any impacts are minimised as far as is possible.

Artificial lighting may be required to facilitate safe working as the days become darker or for any night works which has the potential to cause disturbance to local wildlife. However, given the presence of existing street lighting across the length of the Kincardine Bridge, and given the mitigation detailed below, the overall impact of any additional lighting used during construction is expected to be reduced.

A temporary short-term increase in noise levels may cause disturbance to local wildlife. However, given the nature of the works, no ground-borne vibration impacts have been forecast. Species are also likely accustomed to existing level of disturbance from traffic in on the Firth of Forth and the trunk road. Mitigation measures detailed below will reduce the potential for noise and visual disturbance to any wildlife in proximity to the bridge during each of the scheme's construction.

While works will not result in a direct impact on the Firth of Forth SPA and Ramsar, and River Teith SAC, unmitigated, potential indirect risk exists. The proposed works will, for example, take place directly above the Upper Forth Estuary. Any loss of containment e.g., a spill of fuel, oil, chemicals (i.e., hydraulic fluid) or wastewater from hydrodemolition, could therefore result in detrimental impacts to the Upper Forth Estuary and the species it supports. However, with mitigation measures implemented, the accidental release of pollutants is extremely unlikely. Pollution prevention measures, for example, will be strictly enforced onsite and Guidance for Pollution Prevention (GPPs) will be strictly adhered to, mitigating a loss of containment.

Considering the nature, duration, size, and scale of the scheme, and with implementation of mitigation detailed above, the proposed works impacts on biodiversity throughout the construction period are therefore assessed to be temporary, minor adverse in magnitude.

Upon completion of the works, no residual impacts are anticipated in relation to biodiversity.

Biodiversity mitigation measures:

- Multiple designated sites are found in proximity to the Kincardine Bridge. As such, site operatives will be made aware of those relevant to each scheme prior to the commencement of works.
- Conditions detailed within the Marine Licence, HRA and supporting documents for minimising the potential for impacts to qualifying features of the Firth of Forth SPA, Ramsar, and SSSI, and River Teith SAC will be adhered to on site. This includes but is not limited to all mitigation detailed in the HRA, an Ecological Clerk of Works (ECoW) to supervise and monitor key parts of the works, and, where possible, minimising works in the winter season for works on the southern span. The ECoW will include:
 - Provide ecological support to the Contractor during the Proposed Works and ensure the ecological mitigation within the SEMP is adhered to.
 - Supervise and advise on the placement of noise and visual screens around the compound.
 - Be present on site during daytime maintenance works over winter to observe birds' reactions to the proposed works to identify if there is significant disturbance. The ECoW will also be present on site at dusk between September and March to observe birds' reactions to the proposed works to identify if there is significant disturbance and to stop works if required. Full time ECoW presence is unlikely to be required, however site presence will be required for noisy/more disturbing

activities. Advice will be sought from an ecologist prior to the works on the requirement for ECoW presence. If significant disturbance is identified, works will cease and appropriate mitigation will be proposed and discussed with NatureScot. Further mitigation could include: extending the “soft-start” process, amendments to lighting plans, and use of additional screening.

- Access across the saltmarsh for the 50ft Span schemes will be minimised as far as is possible and will utilise geotextile mats to minimise compression of the ground.
- Consultation with Centre for Ecology and Hydrology (CEH) is currently ongoing with regards to the production of a saltmarsh management plan. Any mitigation or monitoring detailed within this plan will be strictly adhered to.
- The works corridor will be minimised as far as possible and materials, ancillary plant, vehicles, NRMM and personnel will be constrained through the use of temporary barriers, where necessary.
- Where lighting is required, the site lighting layout will be positioned and angled to only illuminate the working area (e.g. not shining onto the Upper or Middle Forth Estuary) and will be temporary in nature.
- A nesting bird checking survey will be undertaken for the Kincardine Bridge at the start of the breeding season 2026, depending on the timing, nature and location of works additional surveys will be undertaken as deemed necessary.
- The works are not permitted to disturb or destroy any active birds nests. If an active birds nest is identified onsite that will be impacted by works, the Environmental Team will be contacted.
- The use of tool tethers will be implemented when working from suspended areas.
- Where works are required on substructures below the Kincardine Bridge where they will require operatives to be suspended from the structure, or where there is a risk of pollution, i.e. during hydro-demolition, they will be fully encapsulated to ensure no material can escape to the Upper or Middle Forth Estuary.
 - Debris netting / encapsulation measures will be periodically checked throughout the works to ensure they remain effective.
- The Contractor will employ ‘soft-start’ techniques for all noisy activity to avoid sudden and unexpected disturbance during works. Each time the activity is started up after a period of inactivity, the noise levels will be gradually increased over a period of 30 minutes to permit animals (and birds) to move away from the disturbance.
- Given the likelihood for protected species to be in and around the works area, including qualifying species of the SPA / Ramsar Toolbox Talk TTN-139 ‘Protected Species’ will be briefed to all site operatives prior to the commencement of works.

- All equipment stored onsite will be checked at the start of each workday to ensure protected species, and any or other mammal species, are not present. Any storage containers/plant within the compound will also be secured overnight to prevent exploration by protected species (and any or other mammal species). Any areas where an animal could become trapped (e.g., storage containers) will also be covered at the end of each working day, to avoid mammals falling in and becoming trapped.
- Site personnel will remain vigilant for protected species and will be instructed to not approach or touch any animals seen on site. Any sightings of protected species will also be reported to BEARs Environmental Team. Should a protected species be encountered or move within 50m of the active works (including compounds), works will be temporarily halted until the animal(s) move at least 50m away from the construction site, or until BEARs Environmental Team can provide advice.
- BEAR Scotland's Environmental Team will be contacted to allow consideration of potential environmental effects if:
 - Unforeseen site clearance is required.
 - Unplanned works must be undertaken out with the carriageway boundary.
 - There is any deviation from the agreed plan, programme and/or method of working.
 - Nesting birds are found onsite.
- BEAR Scotland's Control Room will be contacted if there is a pollution incident.

Geology and soils

Road schemes have the potential to impact upon the geology and soils through direct and indirect impacts on sensitive sites, loss or sterilisation of mineral deposits or soil resources, disturbance of contaminated land, or surcharging of ground which may accelerate erosion and subsidence.

Schemes within the southern extents of the Kincardine Bridge span the Firth of Forth SSSI. While, all construction works on the southern span will be undertaken on the elevated Kincardine Bridge structure which will negate any potential for vibration impacts due to its elevated nature there will be a requirement for access across the existing saltmarsh habitat during concrete repairs and bearing replacement works. As such there is potential for compression of the ground during vehicle movements which could result in the natural geomorphic processes being compromised. However, mitigation measures detailed below and within the Biodiversity section will ensure any impacts are minimised as far as is possible.

Furthermore, where there is a requirement for compounds on made ground, i.e., within the laydown area at the southern side of the extents, existing compounds will be utilised to minimise the potential for any impacts. Mitigation measures detailed below will further reduce the potential for any impacts to geology and soils.

Considering the nature, size, and scale of each of the schemes, and with implementation of the mitigation detailed below, the proposed works impacts on geology and soils throughout the construction period are therefore assessed to be temporary, negligible adverse in magnitude. Upon completion of the works, no residual impacts are anticipated on geology and soils.

Proposed mitigation measures:

- Site personnel will be made aware of the sensitivity and proximity of the Firth of Forth SSSI.
- Access tracks will be designed under guidance from CEH and will be minimised as far as possible utilising geotextile mats to minimise compression.
- Works will be restricted to elevated Kincardine Bridge structure as far as possible and will stay within the existing compound boundaries.

Material assets and waste

Minimising impacts arising from construction materials are focussed upon making the most efficient use of materials onsite to reduce the need for imported primary materials and minimise the creation and disposal of waste through (i) reduction, (ii) re-use, and (iii) recycling. Potential impacts have been assessed for both the construction and operational phases of these schemes. It is anticipated that most material impacts are likely to arise during construction, though long-term residual impacts could occur post construction during the operational phase e.g., during the disposal of materials arising from routine maintenance operations.

However, the detailed design will reduce the requirements for primary materials e.g., the carriageway surfacing, and subbase will be carefully considered to minimise the requirements for importing primary material. Materials will also be derived from recycled, secondary, or re-used origin as far as practicable within the design specifications to reduce natural resource depletion, e.g., the existing parapets and lamp stands will be removed from the site, refurbished, and returned to the site.

Considering the nature, duration, size, and scale of the schemes, and with implementation of the mitigation detailed below, the proposed works impacts on material assets and waste throughout the construction period are therefore assessed

to be temporary, negligible adverse in magnitude. Upon completion of the works, no residual impacts are anticipated on materials or waste.

Material assets and waste mitigation measures:

- Where individual schemes exceed the £350,000 value threshold, a SWMP will be completed by the Designer and Contractor as required. The SWMP will provide details of the following:
 - The quantity and type of waste that will be produced.
 - How waste will be minimised, reused, recycled, recovered, or otherwise diverted from landfill.
 - How materials that cannot be reused, recycled, or recovered will be removed from site and consigned, transported and disposed of in full accordance with all relevant legislation.
- Full encapsulation of the works area, where required, will ensure that all waste generated from the construction activities of each scheme (hydro-demolition, concrete repairs, asbestos removal etc.) will be contained and controlled to minimise the risk of emissions of pollutants.
- Good materials management methods (e.g., 'just-in-time' delivery) will be implemented on each scheme wherever possible.
- Care will be taken to order the correct quantity of materials to prevent disposal of unused materials.
- The Contractor will comply with all 'Duty of Care' requirements, ensuring that any surplus materials or waste are stored, transported, treated, used, and disposed of safely without endangering human health or harming the environment. Waste transfer notes and/or waste exemption certificates (if required) will also be completed and retained.
- The Contractor is responsible for the reuse / disposal of non-hazardous road planings, and this will be registered in accordance with a Paragraph 13(a) waste exemption issued by SEPA as described in Schedule 3 of the Waste Management Licensing Regulations 2011, the rules of which will be complied with.
- Bulk material will be ordered/delivered to site, without packaging where possible.
- Any material removed from site will be taken to a licensed facility.
- Designated areas will be identified, within which all materials and personnel, including construction compounds, will be contained to limit environmental disturbance during construction works. This will include a designated area (if required) for segregation and reuse of waste materials.
- The selection of areas for materials stockpiling will avoid sensitive locations such as road drainage. Stockpiled materials with leachate potential, for example, will be stored away from road drainage to prevent cross-contamination with other materials, wastes, or groundwater.

- Materials will be stored with the appropriate security to prevent loss, theft, or vandalism.
- Wastewater from welfare facilities (if required) will be subject to effluent treatment followed by tanker removal.
- If hazardous substances are used onsite, each substance will be subject to assessment under the Control of Substances Hazardous to Health (COSHH) Regulations 2002. Hazardous substances will also be clearly labelled and disposed of, in line with relevant waste regulations. Special waste will not be mixed with general waste and/or other recyclables.

Noise and vibration

Given that the majority of the schemes are located on an elevated structure there is limited potential for vibration impact to the surrounding areas. While some of the schemes may require site compounds or access to areas below the bridge these are existing facilities and will not require any excavation activities or the use of tools which could generate vibration impacts.

Activities undertaken on site could potentially have some localised and short-term noise impacts in proximity to the works. The works will, for example, require a range of ancillary plant, vehicles and NRMM. Noise will also be generated by the removal of steel, unloading materials, vehicle movement, using breakers (jackhammers), chipping hammers, use of rollers, etc. As a result, there is potential for noise effects.

However, the schemes are not located within a CNMA or CQA, and the majority of works are expected to be completed utilising a daytime working programme (07:30 – 16:30). Works with the potential to induce worst-case scenario noise (vehicle movements, material delivery, use of hand tools etc.) will also be intermittent, temporary, and short-lived. The potential for disturbance will therefore be somewhat diminished.

Additionally, the proximity of road space suggests that residents of surrounding properties have a degree of tolerance to noise disturbance. Moreover, the impacts will be further reduced on those projects where there is no requirement for TM, as vehicle idling time will be reduced.

Considering the likely sources of noise, with the nature, duration, size, and scale of the schemes, and with implementation of the mitigation detailed below, it is unlikely that noise associated with the works will lead to significant impacts, disruption and/or complaints. The proposed schemes are therefore anticipated to result in temporary, minor adverse noise impacts.

Noise mitigation measures:

- If unacceptable noise is emanating from the site the operation will, where possible, be modified and re-checked to verify that the corrective action has been effective. Actions to be considered include (a) minimizing cutting and grinding on-site, (b) reducing the operating hours, (c) repositioning equipment, (d) changing the method of working etc. Corrective actions will be actioned through the non-conformance reporting procedure, which ensures a root-cause analysis is carried out on each incident. The non-conformance procedure also ensures that appropriate corrective and preventative action measures are agreed and implemented in a timely fashion with all parties, and are recorded and actioned through to closeout, and fully auditable and traceable.
- Toolbox Talk TTN-095 “Noise and Vibration (wildlife)” will be briefed to all personnel onsite prior to works commencing.
- Ancillary plant, vehicles and NRMM with directional noise characteristic will (where practical) be shut down in intervening periods between site operations.
- The use of percussive hand-tools, grinders, impact wrench’s, chipping hammers, etc. will be minimised as far as is possible, and when used will be fitted with mufflers or silencers of the type recommended by the manufacturer.
- Drop heights from vehicles and NRMM will be kept to a minimum to minimise noise when unloading.
- All ancillary plant, vehicles and NRMM used onsite will be regularly maintained, paying attention to the integrity of silencers and acoustic enclosures.
- All compressors will be ‘sound-reduced’ models fitted with properly lined and sealed acoustic covers which will be kept closed when in use.
- HGV, site vehicles and NRMM will be switched to the minimum setting required by HSE and, where possible, will utilise ‘broadband non-tonal’ or ‘directional sound reversing’ alarms. Speed limits will also be reduced through the works.

Population and human health

During construction, activities undertaken on site have the potential to cause temporary adverse impacts on local residents and road users. Numerous properties (including residential and commercial properties) lie within 300m of the Kincardine Bridge. The closest residential properties lie approximately 22m northeast of the northern part of the scheme extents. As such, there is potential for noise disturbance as well as some limited potential for visual disturbance to these residents during these schemes.

However, the properties in proximity to the north side of the Kincardine Bridge receive little or no screening from the bridge deck, and as such will likely have a tolerance for noise disturbance. Additionally, TM is not required for all schemes and

when utilised TM will only be in place for a short duration, and no congestion issues are noted during the proposed construction hours.

There is potential for NCN Route 76 and Core Path P746/06 to be temporarily impacted during works on the north abutments or below the bridge deck on the north side of the bridge. Additionally, the footpaths which run along the full length of the Kincardine Bridge may be temporarily impacted during schemes such as the Gate Works and Asbestos Removal. Through access will be maintained where practicable providing non-motorised user (NMU) safety can be ensured. If safety cannot be ensured and the NCN route and core path must be closed, Fife Council will be consulted to make alternative route arrangements.

Considering the nature, duration, size, and scale of the schemes, and with implementation of the mitigation described below, impacts on population and human health are assessed as temporary, minor adverse in magnitude.

Population and human health mitigation measures:

- Where properties are located within 50m of the schemes, Toolbox Talk TTN-042 "Being a Good Neighbour" will be briefed prior to works commencing.
- In the event that night works are required, construction lighting will take into account the need to avoid illuminating surrounding properties to avoid a nuisance at night, and non-essential lighting will be switched off at night.
- Through access will be maintained at all times on one of the dedicated footpaths which run along both sides of the Kincardine Bridge, and on NCN Route 76 and Core Path P746/06. If access must be restricted, appropriate signage will be in place, at either end of the bridge, to direct travellers along the footpath on the other side of the Kincardine Bridge. If access to the Core Path is restricted, the design engineer will consult with Fife Council to determine an alternate route, and make provisions to maintain NMU safety.
- Where appropriate, a communication strategy (e.g., social media, consultation with local authority and other stakeholders, letter drop (for night-time works), etc.) will be initiated to keep local residents and/or businesses informed of the proposed working schedule for each relevant scheme, particularly the times and durations of noisy construction activities. The communication strategy will also provide a 24-hour contact number for the BEAR Scotland Control Room.
- Where necessary for above deck works, advanced signage will be strategically placed on the trunk road to notify stakeholders of the road closure and diversion, as well as the closure of the footpath where necessary.
- Where necessary, a Traffic Management Plan (TMP), which includes measures to avoid or reduce disruption to road traffic, will be produced in accordance with the Traffic Signs Manual (Department of Transport 2009). The TMP will ensure that there is no severance of community assets, access routes or residential development.

- Journey planning information will be available for drivers online at the [trafficscotland.org](https://www.trafficscotland.org) website. Journey planning information will also be available for drivers online through BEARs social media platforms.

Road drainage and the water environment

During the schemes, there is potential for temporary adverse impacts on the Upper and Middle Forth Estuary, the former of which is spanned by the Kincardine Bridge. Potential changes in water quality e.g., from pollution events (either by accidental spillage of sediments, particulate matter, chemicals, or fuels) during the refurbishment works have the potential to have a direct or indirect effect on the Upper and Middle Forth Estuaries during the works.

However, the potential for a direct pollution incident within a the Upper and Middle Forth Estuaries is unlikely e.g., experience gained from BEAR maintenance schemes elsewhere on the network has shown that where standard best working practice is adopted (e.g., adherence to SEPA GPPs etc.), water quality is protected. With mitigation measures detailed below being implemented, the risk to surrounding waterbodies during each of the schemes is considered to be very low.

Considering the nature, size, and scale of the each of the schemes, and with implementation of the mitigation detailed below, the proposed works impacts on the road drainage and water environment are assessed as temporary, negligible adverse in magnitude.

Upon completion of the works, no residual impacts are anticipated in relation to the road drainage and water environment.

Road drainage and the water environment mitigation measures:

- The abstraction or transfers of water, or the washing of tools in the Upper or Middle Forth Estuaries will not be permitted.
- No discharges into the Upper or Middle Forth Estuary, or drainage systems out with the SPV section, will be permitted.
- Where works are required on structures below the Kincardine Bridge, i.e., the concrete repairs on the 50ft Span etc., where they will require operatives to be suspended from the structure, or where there is a risk of pollution, i.e., during hydro-demolition, grit-blasting, painting etc. they will be fully encapsulated to ensure no material can escape to the Upper or Middle Forth Estuary.
 - Debris netting / encapsulation measures will be periodically checked throughout the works to ensure they remain effective.
- Pollution prevention measures will be implemented onsite with Guidance for Pollution Prevention (GPPs) being strictly adhered to.

- Appropriate measures will be implemented during applicable schemes to limit the potential for wastes and materials to enter any gullies present along the deck of the Kincardine Bridge. On completion of operations, any gullies present on site will be visually checked to ensure they have not become blocked as a result of the scheme.
- Where required for specific schemes, concrete, cement, grout, etc. mixing and washing areas will be sited 10m from road drainage entry points, the Upper and Middle Forth Estuaries and saltmarsh habitats. The washing out and cleaning of concrete batching plant will be undertaken within a contained area, and wash waters will be collected and contained for authorised disposal off site. Wash waters from concrete works will not be discharged into the Upper or Middle Forth Estuaries.
- Where applicable and practicable, bio-degradable hydraulic fluids and oils will also be utilised in machinery. Plant, fuel, oils, generators etc., will also be banded appropriately in the designated laydown area.
- Any loose material or bagged cement/concrete (if required) will be stockpiled in an area of the site where it can be left undisturbed and will not interfere with site operations. Bagged cement/concrete will also be protected to ensure it remains dry. The surface of stockpiles will also be graded to reduce surface runoff and will be located at least 10m from road drainage, the Upper and Middle Forth Estuaries and saltmarsh habitats, and stored on an impermeable surface or have bunds erected around stockpiles.
- During hydro-demolition (where required for schemes such as the concrete repairs) the following will be implemented:
 - Prior to the discharging of water to newly refurbished drainage which connects with a SuDS pond, the appropriate level (i.e. registration, simple licence, complex licence) of authorisation will be gained from SEPA under The Water Environment (Controlled Activities) (Scotland) Regulations 2011 Registration Application Form Discharge of Trade (or Other) Effluent.
 - Prior to works commencing, a bund will be created below the work area to contain the runoff water from the hydro demolition works and allow it to be pumped onto the treatment process. Before the hydro-demolition works commence, clean water will be sprayed into the encapsulated area to check its effectiveness / robustness. The hydro-demolition works will not commence until this is found to be satisfactory.
 - All water to be used onsite will be delivered by bulk tanker and be of potable quality.
 - Once in operation, the waste-water produced will be contained within the encapsulation. Waste-water will be collected in the sump and pumped to a bin using a sub pump positioned within the bund, with a second pump in the bin to transfer the water to the Siltbuster HD Unit (positioned on the bridge) for the treatment phase. The solid waste will be removed manually where at all possible. The solids falling into the encapsulation will be removed by hand, as and when required.

- Once the waste-water has been pumped onto the bridge, it will then undergo a two-phase treatment using the Siltbuster HD Unit, which is specifically designed to treat waste-water from hydro-demolition operations. The system will firstly remove suspended solids to an acceptable level and secondly will neutralise the high pH by using a fully automated CO2 dosing process to neutralise the alkalinity. Safe estimate target values are: (i) suspended solids – 50 mg/l (50 parts per million), (ii) pH level to be neutral (7 to 9) at discharge.
- The waste-water that has been treated by the Siltbuster will then be disposed of in line with the granted SEPA authorisation. It will be discharged at a rate and in a manner that does not cause an overload in the drainage system and result in overspill onto the bridge deck.
- Hydro-demolition works will avoid heavy rainfall periods which could affect the performance of the Siltbuster HD Unit.
- All site personnel will be made aware of site spillage response procedures and in the event of a spill, all works associated with the spill will stop, and the incident reported to the Site Supervisor. Small spills that did not leave the site boundary and are cleaned up without material environmental harm or residual environmental impact would most likely not be required to be notified to SEPA or other authorities. However, all such incidents will to be recorded and reported to BEAR Scotland's Environmental Team. In the event of a 'serious incident', SEPA will be notified without delay. Such notification will include: (i) the time and duration of the incident, (ii) a description of the cause of the incident, (iii) any effect on the environment as a result of the incident, and (iv) any measures taken to minimise or mitigate the effect and prevent a recurrence.
- All waste, vehicles, ancillary plant, NRMM and fuels will be stored in the compound(s) or laydown area and will be secured and located, if space is available, at least 10m from drainage entry points, the Upper and Middle Forth Estuaries in order to comply with GPP 5 'works and maintenance in or near water'. Refuelling will only be undertaken at designated refuelling areas (e.g., on hardstanding, with spill kits available, and >10m from drainage entry points, the Upper and Middle Forth Estuaries and saltmarsh habitats, where practicable). Spill kits will also be available within all site vehicles and spill kits will be replenished onsite when required. Only designated trained and competent operatives will be authorised to refuel plant. Generators, and other ancillary plant and NRMM, where there is a risk of leakage of oil or fuel, will have internal bunding or will have a secondary containment system (e.g., drip trays, plant nappies, etc.) placed beneath them that meets 110% capacity requirements. Containment systems will also be emptied regularly. All waste, vehicles, ancillary plant, NRMM and fuels will also be stored in a manner that ensures they are protected from damage by collision or extremes of weather. Any vehicles, ancillary plant, and NRMM not in operation will (where possible) be sited in the laydown area.
- Where required, plant, fuel, oils, generators etc. will be bunded appropriately in the designated laydown area, and all ancillary plant, vehicles and NRMM will also be stored in the laydown area above the work site.

- Regular visual pollution inspections of the work site (particularly for schemes near road drainage entry points) will be conducted (e.g., site walkover by engineer or Site Supervisor), especially during periods of heavy rain.
- All vehicles and NRMM used during each scheme will have been regularly maintained, paying attention to the integrity of oil tanks, coolant systems, gaskets etc. A checklist will be present to make sure that the checks have been carried out.
- When the works are complete, the Contractor will ensure that all materials, debris, tools, plant, and equipment are removed from the work area. The Contractor will also check the area thoroughly for spillages or potential pollution sources and remove or clean-up anything found.

Climate

BEAR Scotland, working on behalf of Transport Scotland, undertake carbon monitoring of major projects and operational activities. Emissions from activities are recorded using Transport Scotland's Carbon Management System. BEAR Scotland also undertakes resource efficiency activities to manage and reduce emissions contributing to climate change. The works will also extend the maintenance intervals required for future works. In doing so, the service life of the trunk road is also extended.

During each of the schemes there is potential for impacts as a result of the emission of greenhouse gases through the use of equipment, vehicles, and NRMM, material use and production, and transportation of material/waste. However, considering the nature, size and scale of the individual schemes, and the mitigation detailed below, the risk of significant impacts to climate are considered to be negligible and adverse in magnitude.

Upon completion of the proposed schemes no residual impacts are anticipated on the climate.

Climate mitigation measures:

- Local contractors and suppliers will be used as far as practicable to reduce fuel use and greenhouse gases emitted as part of the works.
- BEAR Scotland will adhere to its Carbon Management Policy.
- Where possible, waste will be removed to local waste management facilities.

Vulnerability of the project to risks

There will be no change to the likelihood of flooding on the Kincardine Bridge upon completion of the schemes.

The majority of works will be restricted to areas of made/engineered ground on the Kincardine Bridge, with access to the majority of schemes gained from the A985 carriageway. Where access below the bridge is required for the 50ft span concrete repairs and bearing replacement, it will be minimised as far as is possible to limit impacts. Furthermore, a management plan will be implemented to aide with the regeneration and recovery of the saltmarsh following the access. TM is likely to involve a mix of full carriageway closures with diversions via the adjacent A876 Clackmannanshire Bridge, or single lane closure with two-way timed traffic lights. NMU's will be appropriately accommodated within traffic management arrangements as required. As such, the proposed schemes impact on road traffic accidents are assessed to be of negligible magnitude.

A Site Environmental Management Plan (SEMP) will be produced by BEAR Scotland, for each individual scheme, which sets out a framework to reduce the risk of adverse impacts from construction activities on sensitive environmental receptors. The Contractor will comply with all conditions of the SEMP during works and may be subject to audit throughout the contract.

Considering the above, the vulnerability of the project to of major accidents and disasters is considered to be low.

Assessment cumulative effects

While several of the schemes are currently programmed to occur simultaneously there is potential for small cumulative effects on impacts such as noise. However, the works are located on an active trunk road which is spans active waterway in close proximity to the Clackmannanshire Bridge and a railway line. As such the existing baseline noise conditions in and around the Kincardine Bridge are likely to be moderate and slight temporary increases in noise as a result of construction activities are not expected to be significant, even when occurring at the same time as other schemes. As such, the proposed works are not anticipated to result in significant environmental effects. Any small cyclic activities undertaken on the Kincardine Bridge, not included within this RoD, will take into account already-programmed works and as such, any cumulative effect will be limited.

A search of the Scottish Road Works Commissioner's website ([map search](#)) has identified no works noted as being planned, on the Kincardine Bridge or in proximity to the works which will be undertaken at the same time, other than those already assessed within this report. TM is not required for the full duration of each scheme but where it is necessary TM will be coordinated to minimise disturbance.

In addition, a search using the [Falkirk Council](#) planning portal has identified seven planning applications within 300m of the scheme extents in the last two years, however all seven relate to amendments for a single project.

Table 1: Planning applications in the last two years within 300m of the southern side of the bridge extents.

Reference	Proposal	Status	Decision	Distance from scheme
P/20/0398/COND04	Compliance with Conditions of P/20/0398/FUL - Demolition of Existing Kiosk Building, Erection of Petrol Filling Station with Associated Kiosk (Class 1), Jet Washes, Restaurant (Including Drive-Thru) (Class 3), Formation of Site Access, Parking Provision, Landscaping and Ancillary Works	Awaiting decision	N/A	230m west
P/20/0398/COND01	Compliance with Conditions of P/20/0398/FUL - Demolition of Existing Kiosk Building, Erection of Petrol Filling Station with Associated Kiosk (Class 1), Jet Washes, Restaurant (Including Drive-Thru) (Class 3), Formation of Site Access, Parking Provision, Landscaping and Ancillary Works	Unknown	Condition(s) Discharged	230m west
P/20/0398/NMV02	Amendment to P/20/0398/FUL - Demolition of Existing Kiosk Building, Erection of Petrol Filling Station with Associated Kiosk (Class 1), Jet Washes, Restaurant (Including Drive-Thru) (Class 3), Formation of Site Access, Parking Provision, Landscaping and Ancillary Works	Decided	Withdrawn	230m west
P/20/0398/COND02	Compliance with Conditions of P/20/0398/FUL - Demolition of Existing Kiosk Building, Erection of Petrol Filling Station with Associated Kiosk (Class 1), Jet Washes, Restaurant (Including Drive-Thru) (Class 3), Formation of Site Access, Parking Provision, Landscaping and Ancillary Works	Awaiting decision	N/A	230m west
P/24/0428/VRC	Variation of Condition 2 of Application Ref P/20/0398/FUL (Demolition of Existing Kiosk Building, Erection of Petrol Filling Station with Associated Kiosk (Class 1), Jet Washes, Restaurant (Including Drive-Thru) (Class 3), Formation of Site Access, Parking Provision, Landscaping and Ancillary Works) to allow works to commence on site	Awaiting decision	N/A	230m west
P/25/0055/VRC	Variation of Conditions 6 and 9 of Application Reference - P/20/0398/FUL dated 21/10/21 - (Demolition of Existing Kiosk Building, Erection of Petrol Filling Station with Associated Kiosk (Class 1), Jet	Decided	Grant Planning Permission	230m west

Reference	Proposal	Status	Decision	Distance from scheme
	Washes, Restaurant (Including Drive-Thru) (Class 3), Formation of Site Access, Parking Provision, Landscaping and Ancillary Works) for Changes to the Visibility Splay and Phasing of the Development and Cycle Path on the North Side of Higginsneuk Ferry			
P/20/0398/COND03	Compliance with Conditions of P/20/0398/FUL - Demolition of Existing Kiosk Building, Erection of Petrol Filling Station with Associated Kiosk (Class 1), Jet Washes, Restaurant (Including Drive-Thru) (Class 3), Formation of Site Access, Parking Provision, Landscaping and Ancillary Works	Awaiting decision	N/A	230m west

There are fifteen applications listed on the [Fife Council](#) planning portal within 300m of the scheme extents in the last two years:

Table 2: Planning applications in the last two years within 300m of the northern side of the bridge extents.

Reference	Proposal	Status	Decision	Distance from scheme
25/00867/LBC	Listed building consent for internal and external alterations including installation of new and replacement windows, door, installation of rooflights, repainting and repointing	Registered	N/A	15m north
25/00868/FULL	Change of use from public house (Sui Generis) to dwellinghouse (Class 9) including installation of new and replacement windows, door, installation of rooflights and repainting	Registered	N/A	15m north
23/01761/FULL	Installation of replacement windows	Decided	Application Permitted with Conditions	40m north
23/01762/LBC	Listed Building Consent for installation of replacement windows	Decided	Application Permitted – no conditions	40m north
24/02017/CLP	Certificate of lawfulness (proposed) for installation of replacement windows	Decided	Application Permitted – no conditions	75m north
25/01190/LBC	Listed Building Consent for installation of replacement windows and door	Registered	N/A	85m north
25/01191/FUL	Installation of replacement windows and doors	Registered	N/A	85m north
24/02640/TEL	Notification of intention to install a 10m high pole - Community Hall Play Area, Forth Street, Kincardine	Decided	Case Closed	150m north

24/02645/FULL	Alterations to flatted dwelling including installation of rooflights to front, dormer extension to rear, installation of windows to front and side, erection of domestic outbuildings and installation of pedestrian gate to walled garden	Decided	Application Permitted with Conditions	70m north
24/00260/FULL	Alterations to flatted dwelling including installation of 2 No. rooflights to front, 3 No. dormers to rear, 1 No. window to side, vehicle access including hard standing and electrical charging point, erection of gate, storage container and garden room within walled garden	Withdrawn	Application Withdrawn	70m north
23/01849/FULL	Erection of outbuilding (retrospective)	Decided	Application Permitted with Conditions	110m northeast
23/03528/FULL	Installation of new and replacement lighting columns and associated infrastructure	Decided	Application Permitted with Conditions	265m north
24/02067/PN	Prior Approval for installation of replacement windows	Decided	Application Permitted – no conditions	290m north
22/04013/NMV1	Replacement single storey extension and installation of rooflights to rear of dwellinghouse - Non Material Variation to approved 22/04013/FULL for changes to exterior finish, eaves extended and enlargement of kitchen window	Decided	Application Permitted – no conditions	280m northeast
24/00962/TEL	Notification of intention to install a 9m high pole - Opposite 6 Silver Street, Kincardine	Decided	Case Closed	135m east
23/01689/FULL	Erection of domestic outbuilding	Decided	Application Permitted with Condition	145m east

The works associated with these applications are generally relatively minor in nature, therefore it is unlikely that the proposed works will have a significant cumulative effect with any other future works in the area. The only major works are those detailed in P/25/0055/VRC, which have very recently been granted. As such, it is unlikely that the works will progress soon, or simultaneously with the proposed works on the Kincardine Bridge. Additionally, the planning applications are not within 300m of every project on the Kincardine Bridge, limiting any potential cumulative effects.

In addition, a comprehensive in-combination impact assessment has been undertaken as part of the HRA in support of the seven-year marine licence which identified the one project, the SPV Replacement, for potential in-combination impacts. Although for seven other projects an in-combination assessment was not possible at the time of writing due to lack of information and that it would therefore be

for these future developments to take into account the results of the A985 Kincardine Bridge 7-Year Marine Licence HRA. While the potential for in-combination impacts with the SPV Replacement were noted, providing BEAR Scotland ensure that the saltmarsh management plan is updated to allow for the restoration of this habitat following necessary access during underdeck works, there will be no adverse effects to site integrity (AESI) on the designated sites.

Assessments of the environmental effects

The Kincardine Bridge spans the Upper Forth Estuary within the MHWS and as such a Marine Licence is required under Part 4 of the Marine (Scotland) Act 2010 and Part 4 of the Marine and Coastal Access Act 2009. A seven-year Marine Licence application was submitted to Marine Directorate on 23rd April 2025. The application, as submitted included a Habitats Regulations Appraisal (HRA) of all projects scheduled to be undertaken on the Kincardine Bridge within the MHWS over the seven-year period. The list of schemes included within in the Marine Licence include the projects being considered within this RoD. The HRA Screening concluded that the proposed works had the potential to result in Likely Significant Effects (LSE) to some of the qualifying features of the Firth of Forth SPA and Ramsar Site, and River Teith SAC and as such an Appropriate Assessment (AA) was undertaken. The AA concluded that with mitigation measures implemented there will be no AESI for any of the qualifying features of Firth of Forth SPA and Ramsar sites or for the River Teith SAC for the seven-year duration.

As detailed in the Description of Main Environmental Impacts and Proposed Mitigation section, there are no significant effects anticipated on any environmental receptors as a result of the proposed works.

Statement of case in support of a Determination that a statutory EIA is not required

This is a relevant project in terms of section 55A(16) of the Roads (Scotland) Act 1984 as it is a project for the improvement of a road and the completed works (together with any area occupied by apparatus, equipment, machinery, materials, plant, spoil heaps, or other such facilities or stores required during the period of construction) exceed 1 hectare in area and are situated in whole or in part in the Firth of Forth SPA and Firth of Forth Ramsar Site which is a sensitive area within the meaning of regulation 2(1) of the Environmental Impact Assessment (Scotland) Regulations 1999.

The project has been subject to 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). Screening using Annex III criteria, reference to consultations undertaken and review of available information has not identified the need for a statutory EIA.

The project will not have significant effects on the environment by virtue of factors such as:

Characteristics of the scheme:

- The majority of works will be restricted to areas of made/engineered ground on the Kincardine Bridge, and the adjacent A985 carriageway, with access to the majority of schemes gained from the A985 carriageway. Where access below the bridge is required for the 50ft span concrete repairs and bearing replacement, it will be minimised as far as is possible to limit impacts. Furthermore, a management plan will be implemented to aid with the regeneration and recovery of the saltmarsh following the access.
- Where necessary, containment measures of the working area will be in place to prevent debris or pollutants from entering the surrounding environment.
- All schemes will be temporary and will either be localised or undertaken on a rolling programme.
- The schemes are not expected to result in significant disturbance to protected species that may be present in the wider area
- The risk of major accidents or disasters is considered to be low.
- Removal of any defects along the carriageways and improvements to access structures will provide improved stability and usability of the structure, which will result in safer conditions for road users.
- Any potential impacts of the works are expected to be temporary, short-term, not significant, and limited to the construction phase.

Location of the scheme:

- LBC has been issued for a number of schemes, consultation with Fife and Falkirk Council will be undertaken prior to the commencement of any schemes not already consented.
- The Firth of Forth SPA and Ramsar are spanned by the Kincardine Bridge, however HRA has been undertaken which has confirmed that the works will not result in AESI on the qualifying features providing mitigation measures are employed.
- The Firth of Forth SSSI (EU Site Code 169840) is spanned by the Kincardine Bridge. However, the works will not result in significant impacts on the qualifying features provide mitigation measures are employed.

- Schemes undertaken within the northern extents of the Kincardine Bridge are located within the “Kincardine” Conservation Area, however there is no requirement for alternations of the bridge or any works outwith the existing carriageway boundary and as such there is negligible potential to impact the Conservation Area.
- None of the schemes are located within any areas designated for landscape interests.
- Land use will not change as a result of the works.
- The works do not require any private land acquisition.
- None of the schemes are located within a densely populated area.

Characteristics of potential impacts of the scheme:

- The waste hierarchy will be followed to reduce waste to landfill for each scheme.
- With good practice pollution prevention measures implemented onsite, there is a negligible risk of a pollution event during the construction of each scheme e.g., the SEMP, Designer’s Risk Register, and activity-specific method statements include plans to address environmental incidents.
- Any potential NMU impacts will be temporary, short-term, and limited to the construction phase.
- There will be limited consumption of materials and natural resources, and limited waste or generation associated with the each of the schemes. Measures will also be in place to ensure appropriate removal and disposal of waste.
- There is no change to the vulnerability of the road to the risk or severity of major accidents/disasters that would impact on the environment.
- No impacts on the environment are expected during the operational phase as a result of the works.

References of supporting documentation

- Marine licence application and supporting documents.
- Habitats Regulations Appraisal in support of seven-year marine licence.

Annex A

“sensitive area” means any of the following:

- land notified under sections 3(1) or 5(1) (sites of special scientific interest) of the Nature Conservation (Scotland) Act 2004
- land in respect of which an order has been made under section 23 (nature conservation orders) of the Nature Conservation (Scotland) Act 2004
- a European site within the meaning of regulation 10 of the Conservation (Natural Habitats, &c.) Regulations 1994
- a property appearing in the World Heritage List kept under article 11(2) of the 1972 UNESCO Convention for the Protection of the World Cultural and Natural Heritage
- a scheduled monument within the meaning of the Ancient Monuments and Archaeological Areas Act 1979
- a National Scenic Area as designated by a direction made by the Scottish Ministers under section 263A of the Town and Country Planning (Scotland) Act 1997
- an area designated as a National Park by a designation order made by the Scottish Ministers under section 6(1) of the National Parks (Scotland) Act 2000.



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