



TRANSPORT
SCOTLAND
CÒMHDHAIL ALBA

Environmental Impact Assessment Record of Determination

A90 (Mains of Longhaven)

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Project Details

Description

The works are required to maintain the safety and integrity of a stretch of the A90 carriageway approaching the village of Boddam, Aberdeenshire. Stretches of the carriageway show unsuitable condition with some fretting and cracking whilst other stretches show fretting, cracking, rutting, crazing, potholes, and localised edge deterioration. Patching was also identified in places indicating previous defects or public utilities.

Construction work will involve the milling and replacement of the defective surface course over an approximate 2.1km stretch of the A90 carriageway including the associated disposal of planed material.

Treatment will involve an inlay treatment of TS2010 10m aggregate (Site Class 1, Site Class 3), AC20 Binder and AC32 Base. Road markings will also be reapplied as necessary. The approximate total works area for this scheme is 19,500m² (1.95ha).

The proposed works will entail the following general construction activities:

- Milling of existing bituminous material by road planer.
- Additional bituminous material removed by jack hammer/excavator, where not accessible by planer.
- Road sweeper to collect any loose material.
- Heavy Goods Vehicles (HGVs) for removal and replacement of material.
- Tack/bond coat applied.
- New bituminous material laid by a paver.
- Material compacted using a heavy roller.
- New road markings/chevrons carried out where needed.
- Road studs replaced where necessary.

Works are programmed to take place in March 2023; however, the exact timings and duration are yet to be confirmed. Works are programmed to take place overnight.

Traffic Management (TM) for the scheme will involve an overnight convoy with temporary traffic lights during the day to protect cooling materials or excavations.

Location

The scheme is located in a semi-rural section of the A90 carriageway to the south of the village of Boddam, Aberdeenshire. The National Grid Reference (NGR) co-ordinates are shown below, while the location is illustrated in Figure 1 and Figure 2.

- Scheme Start: NK 11673 40262
- Scheme End: NK 12891 41796

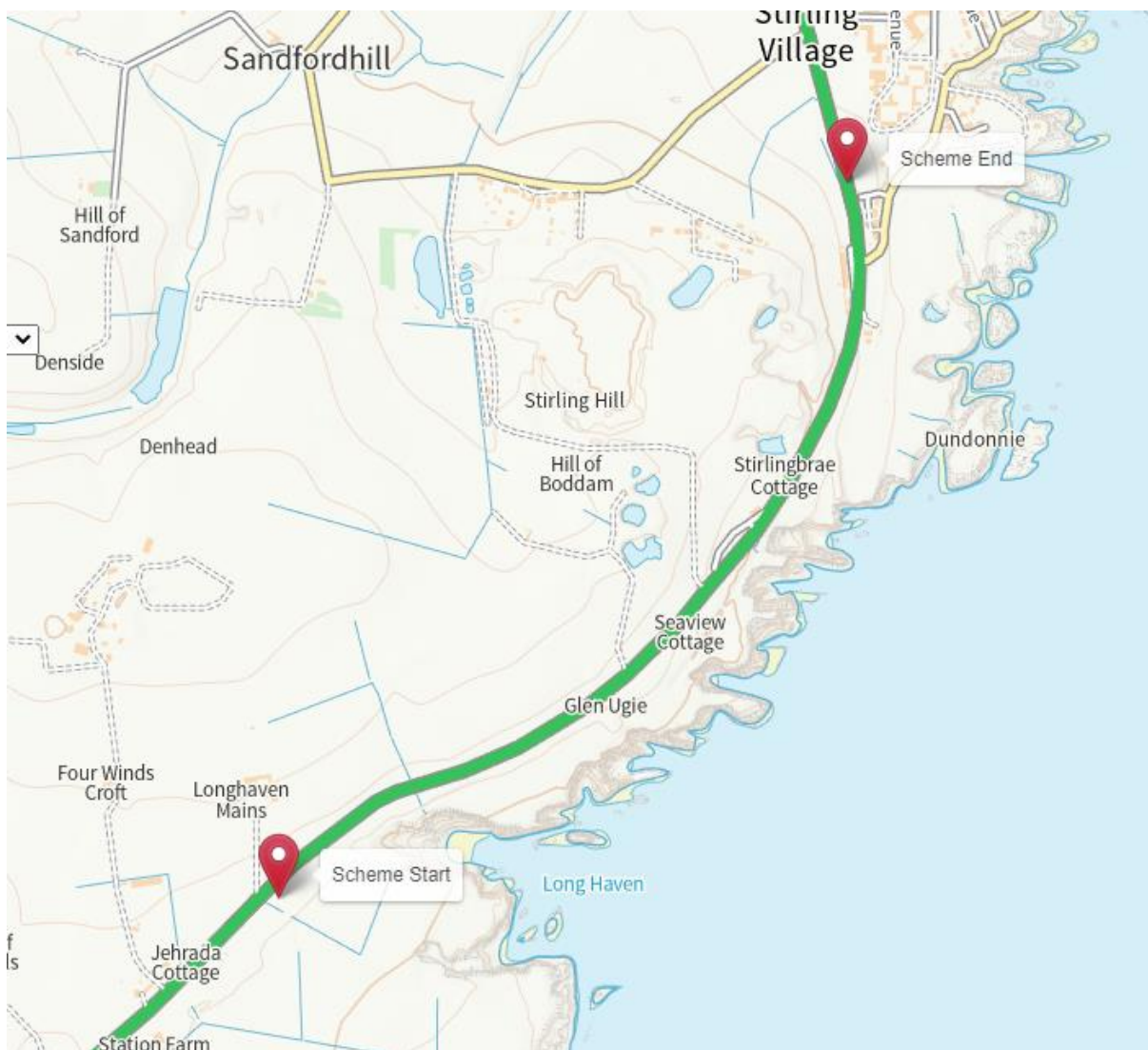


Figure 1: Location of scheme.

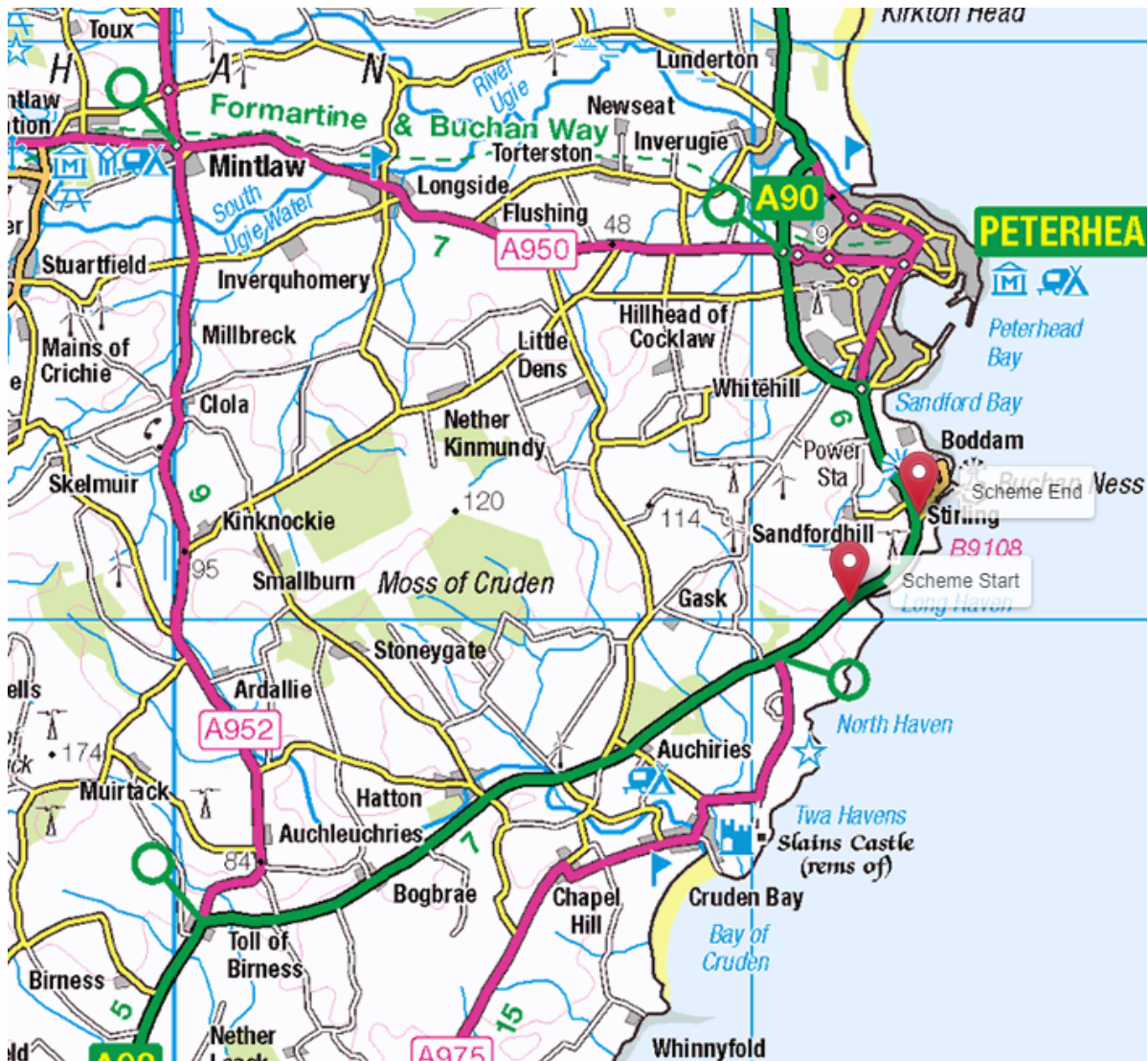


Figure 2: Scheme location within Aberdeenshire.

Description of local environment

Air quality

The scheme is located in a semi-rural area of Aberdeenshire to the south of the village of Boddam. [Aberdeenshire Council](#) has not declared any [Air Quality Management Areas \(AQMAs\)](#)

Multiple residential properties (approx. 22) are located by the A90 (Mains of Longhaven) scheme extent (within 200m) with the closest of these being approximately 7m from the scheme extent. No other sources of concern are present within 200m of the scheme regarding air quality however, the Stirlinghill Quarry is located approximately 300m from the carriageway extents and has the potential to affect air quality via the vehicles accessing the site and the general activities taking place within the quarry.

In 2021, this section of carriageway ([manual count point 20803](#)) had an Annual Average Daily Flow (AADF) of 7913 vehicles, with 890 of these being HGVs.

Cultural heritage

A desktop study using the [Pastmap](#) resource identified multiple Historic Environment Records (HERs) and a Listed Building within 300m of the site extents. Noted below are all of the aforementioned identified sites, with those less than 50m from the scheme extents (or within the scheme extents) containing information detailing the distance from the carriageway.

- Boddam Castle (Scheduled Monument Ref. SM3252 & HER Ref. NK14SW0238 & NK14SW0002)
- RAF Buchan (HER Ref. NK14SW0088)
- South Stirling (HER Ref. NK14SW0307) (25m from scheme extents)
- Stirling Hill (HER Ref. NK14SW0072 (within the scheme extents), NK14SW0070 & NK14SW0034)
- Boddam, Stirling Hill (HER Ref. NK14SW0304 (15m from scheme extents), NK14SW0297, NK14SW0296, NK14SW0300, NK14SW0299, NK14SW0302, NK14SW0303 & NK14SW0301 (10m from scheme extents))
- Boddam (HER Ref. NK14SW0039, NK 14SW0005 & NK14SW0006)
- Boddam Station (HER Ref. NK14SW0087)
- Howe of Boddam (HER Ref. NK14SW0004)
- Hill of Boddam (HER Ref. NK14SW0032)

- Stirling (HER Ref. NK14SW0035 (25m from scheme extents) & NK14SW0089)
- Longhaven (HER Ref. NK14SW0226)
- Buchan Ness Fbm HER Ref. NK14SW0094)
- Dundonaig (HER Ref. NK14SW0040)
- Dundonnie (HER Ref. NK14SW0037)
- Meackie Point (ER Ref. NK14SW0225)
- Hope, Peterhead (HER Ref. NK14SW0167)
- North Sea (HER Ref. NK14SW0148)
- Margaret West, North Sea (HER Ref. NK14SW0136)
- Long Haven- (HER Ref. NK14SW0044)
- Longhaven Quarry (HER Ref. NK14SW0015)

Landscape and visual effects

The [HLA Map](#) classifies the surrounding landscape as a mix of rectilinear fields and farms, rough grazing areas, smallholdings, quarries, military site and urban areas.

A desktop study using [NatureScot Sitelink](#) and [PastMap](#) online interactive map has not highlighted any areas designated for landscape character within proximity of the scheme.

Views of, and from, the road will be temporarily affected during construction due to the presence of works, TM and plant. As the works are minor and operating on a like-for-like basis, no permanent changes to landscape features are predicted.

Works will be restricted to the existing carriageway boundary and will not impact upon the surrounding landscape. As such, impact to local landscape has been assessed as being 'no change' and has been scoped out of requiring further assessment.

Biodiversity

The scheme is located along a stretch of the A90 carriageway south of the village of Boddam, Aberdeenshire within a semi-rural coastal setting. Areas of woodland and rough grazing surround the proposed scheme and the North Sea is located approx. 100m to the east of the carriageway extent.

A desktop study using [NatureScot Site Link](#) online interactive map has highlighted the following designated sites located within 2km of the scheme extents:

- [Bullers of Buchan Coast: Site of Special Scientific Interest \(SSSI\)](#), located approx. 20m away from the scheme at the closest point. The site has been designated for its vegetated sea cliffs and the presence of birds. The site has also been designated a SSSI due to its maritime cliff habitat. The cliff tops contain heathland and brackish flushes.
- [Buchan Nest to Collieston: Special Area of Conservation \(SAC\)](#), located approx. 20m away from the scheme at the closest point. The site has been designated for its vegetative sea cliffs. A wide range of maritime habitats including grassland, crevice and ledge communities are found at Buchan Ness to Collieston.
- [Buchan Nest to Collieston: Special Protection Area \(SPA\)](#), located approx. 20m away from the scheme at the closest point. This site has been designated for the presence of birds.

The [National Biodiversity Network \(NBN\) Atlas](#) has not highlighted any records of Invasive Non-Native Species (INNS) within the scheme extent however, it has been noted that Japanese Knotweed (*Fallopia japonica*) is present approx. 900m northeast of the scheme in the village of Boddam.

Geology and soils

[The National Soil Map of Scotland](#) shows the soil type of the area in and around the scheme to be mineral podzols with mineral gleys surrounding the local soil type and present at the northern and southern extents of the scheme.

A desktop study using the [British Geological Survey Map](#) has identified the major local geology type as the following:

- Bedrock geology: Peterhead Pluton - Granite. Igneous bedrock formed between 443.8 and 419.2 million years ago during the Silurian period.
- To the immediate west of the scheme, the superficial deposits are identified as: gravel, flinty. Sedimentary superficial deposit formed between 2.588 million years ago and the present during the Quaternary period.

A desktop study using [NatureScot's Sitelink online interactive map](#) has highlighted the following designated sites located within close proximity to the scheme extents:

- Bullers of Buchan Coast: Geological Conservation Review Site (GCRS), located approx. 20m away from the scheme at the closest point.

Material assets and waste

Table 1: Key materials required for activities and key waste arising from activities.

Key Materials Required for Activities		
Activity	Material Required	Origin/ Content
Site Construction	<ul style="list-style-type: none"> • Road surfacing (aggregate and binder) • Bitumen • Road paint and studs • Lubricant • Vehicle fuel • Oil 	<p>A proportion of reclaimed asphalt pavement (RAP) is used in asphalt production. Typical RAP values for base and binder are 10% -15% with up to 10% in surface course.</p> <p>TS2010 Surface Course allows a wider array of aggregate sources to be considered when compared to typical Stone Mastic Asphalt (SMA). As a result, the use of TS2010 will reduce the usage of imported aggregates and increase the use of a wider range of sustainable aggregate sources.</p>

Table 2: Key waste arising from construction activities.

Key Waste Arising from Activities		
Activity	Waste Arising	Disposal/ Regulation
Site Construction	<ul style="list-style-type: none"> • Road planings • Removed iron/metal components 	<p>Uncontaminated road planings generated as a result of the required works, will be fully recycled in accordance with the criteria stipulated within the Scottish Environment Protection Agency (SEPA) document 'Guidance on the Production of Fully Recoverable Asphalt Road Planings.</p> <p>Following on-site coring investigations and testing, no coal-tar was identified within the surfacing of the carriageway within the scheme extent.</p>

Noise and vibration

In 2021, this section of carriageway ([manual count point 20803](#)) had an AADF of 7913 vehicles, with 890 of these being HGVs. Baseline noise is likely to be influenced by vehicle traffic from the A90 carriageway and nearby agricultural/industrial activities (with potential for urban activities to influence baseline noise levels toward the northern extent of the scheme). [Modelled noise levels](#) around the scheme extents show levels ranging from 65 – 70 dB within the immediate vicinity of the carriageway and 55dB to 65dB within around 100m of the carriageway.

Multiple residential properties (approximately 22) are located within 200m of the scheme with the village of Boddam located at the scheme end. Various farms and roadside houses are located sporadically along the scheme extents including:

- Mains of Longhaven (approx. 220m from the scheme with access road)
- Glen Ugie (approx. 15m from scheme with access road)
- Seaview Cottage (approx. 8m from scheme with access road)

- Cliftonbank and Dalziel (approx. 14m from scheme with access road)
- Stirlingbrae Cottage (approx. 14m from scheme with access road)
- Kenvara (approx. 7m from scheme with access road)
- Stirlinghill (street) (6 properties approx. 25m from scheme with access road), Forehill (approx. 18m from scheme with access road)
- Rocksley Drive (street) (closest property approx. 30m from scheme in the village of Boddam).

No natural or man-made screening is present between these properties and the carriageway.

Nearby noise sensitive receptors include Longhaven School (located approximately 1km to the south of the scheme) and the residential properties situated on the scheme edge combined with Boddam and Stirling Village to the north of the scheme.

The works do not fall within a [Candidate Noise Management Area](#) (CNMA) as defined by the Transportation Noise Action Plan, Road Maps.

Population and human health

The scheme is located on a semi-rural section of the A90 carriageway, south of the village of Boddam, Aberdeenshire. This section of the A90 carriageway is surrounded by residential properties, industrial activities and grazing farmland with coastal cliffs present to the east of the scheme. This section of the A90 carriageway is not lit by street lighting.

Various dirt and paved access roads and tracks are located within the scheme extents. The first of these is a road leading to Longhaven Mains which is the only access point to this property. Access to this property lies marginally out with the scheme extents with the property approximately 110m from the carriageway and the access road 30m south of the scheme's start point. Other properties where the only access points are from this section of the A90 carriageway include:

- Glen Ugie
 - Located approx. 15m from carriageway extent.
 - Access point approx. 2km north of the schemes southern extent.
 - Access to property likely to be restricted by works.
- Seaview Cottage
 - Located approx. 8m from carriageway extent.
 - Access point approx. 2.25km north of the scheme's southern extent.
 - Access to property likely to be restricted by works.

- Dalziel and Cliftonbank
 - Located approx. 15m from carriageway extent.
 - Two properties present.
 - Access point approx. 2.5km north of the scheme's southern extent.
 - Access to properties likely to be restricted by works.
- Stirlingbrae Cottage
 - Located approx. 14m from carriageway extent.
 - Access point 2.65km north of the scheme's southern extents.
 - Access to property likely to be restricted by works.
- Forehill
 - Located approx. 18m from carriageway extent.
 - Access point approx. 3km north of the scheme's southern extent.
 - Access to property likely to be restricted by works.
- Kenvara
 - Located approx. 7m from carriageway extent
 - Access point approx. 3.05km north of the scheme's southern extent.
 - Access to property likely to be restricted by works.
- Stirlinghill
 - Located approx. 25m from carriageway extent.
 - Six properties present.
 - Access point approx. 3.16km north of the scheme's southern extent.
 - Access to properties likely to be restricted by works.

An access road (Rocksley Drive) is also present within the scheme extent however, this road can also be accessed via the village of Boddam. An entry point to Stirlinghill quarry where a slipway and turning lanes are present is also located on the carriageway approx. 2km north of the scheme's southern extent. There is another access road to the quarry outwith the A90 carriageway via Lendrum Terrace however, it is unclear whether or not this is suitable for HGVs. A desktop study has also identified approx. seven field access points from within the proposed scheme extents (both northbound and southbound). It is unclear whether these access points are the sole point of access to these areas.

A layby is present (southbound) approximately 450m north of the southern extent of the scheme whilst a northbound layby is located approx. 100m from the scheme end (northern extent). Two bus stops are present within the scheme extent (both entitled Rocksley Drive) with stop IDs: 23625232 (northbound) and 23627689 (southbound). There is a 130m (approx.) stretch of paved footway 1km from the scheme's southern

extent (southbound) and another 150m stretch (separated from the roadside by 6m) at the scheme's northern extent.

[The Longhaven – Boddam core path](#) is located to the east of the scheme (approximately 15m distance at its closest point). The Stirling hill core path is located to the north and west of the scheme with the path starting approximately 37m away from the scheme's northernmost extent. No cycle-ways are present within, or close to the site extents.

Road drainage and the water environment

A desktop study using the [SEPA Water Classification Map](#) has identified the coastal area to the east of the scheme (Buchan Ness to Cruden Bay, North Sea, SEPA Watercourse ID: 200125) as having 'Good Ecological Potential'. At its closest point to the scheme, the body of water is approx. 90m away. Multiple small unclassified bodies of water (such as ponds) are located around the scheme with the closest of these being approx. 30m from the scheme. All other waterbodies lie more than 100m away.

[SEPA's flood map](#) has not identified any areas of carriageway susceptible to flooding within the scheme extents. Minor patches of land within 50m of the scheme have a 'high' (10%) likelihood of flooding but none within the carriageway itself.

Drainage for the carriageway is provided predominantly by top entry gullies. Side entries and a culvert can also be found within the site extents.

Climate

Carbon Goals

The Climate Change (Scotland) Act sets out the target and vision set by the Scottish Government for tackling and responding to climate change. The Act includes a target of reducing CO₂ emissions by 80% before 2050 (from the baseline year 1990).

The Scottish Government has since published its indicative Nationally Determined Contribution (NDC) to set out how it will instead reach net-zero by 2045, working to reduce emissions of all major greenhouse gases (GHG) by at least 75% by 2030. By 2040, the Scottish Government is committed to reduce emissions by 90%, with the aim of reaching net-zero by 2045 at the latest.

Transport Scotland is committed to reducing carbon across Scotland's transport network, this commitment is being enacted through the [Mission Zero for Transport](#). Transport is the largest contributor to harmful climate emissions in Scotland. In

response to the climate emergency, TS are committed to reducing their emissions by 75% by 2030 and to a legally binding target of net-zero by 2045.

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

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

Monitoring, Management and Opportunities

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

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

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

Description of main environmental impacts and proposed mitigation

Air quality

Impacts

- On site construction activities carry a potential to produce airborne particulate matter and generate emissions that may have a slight temporary impact on local air quality levels.
- TM such as convoy systems and temporary traffic lights may result in a slight increase in associated vehicle emissions within the surrounding road networks and local areas.

The impacts identified will be a temporary for the duration of the works only and therefore no change is predicted on air quality.

Mitigation

- The following best practice as outlined in the [Guidance on the assessment of dust from demolition and construction](#) (2014) published by the Institute of Air Quality Management (IAQM), which includes the following mitigation relevant to this scheme will be followed:
- All vehicles will switch off engines when stationary; there will be no idling vehicles.
- All plant and fuel-requiring equipment utilised during construction will be well maintained in order to minimise emissions.
- Planing operations will be wetted to reduce dust arising.
- Drop heights to haulage vehicles and onto conveyors will be minimised where practicable.
- Lorries will be sheeted when carrying dry materials.
- Surfaces will be swept where loose material remains following planing.

It has been determined that the proposed project will not have direct or indirect significant effects on local air quality; providing all works operate in accordance with current best practice, the residual impact for air is considered no change.

Cultural Heritage

Impacts:

- Works have the potential to adversely affect the Stirling Hill HER (Ref. NK14SW0072), as the carriageway overlaps with this site in three separate locations.
- Sites located in proximity to the carriageway have the potential to be adversely affected by the scheme.

Mitigation

- Should the nature of the scheme change, or excavation works be required, the Amey E&S Team will be contacted prior to works commencing.
- Should the works encounter any materials of archaeological interest (i.e. discoloured soils or material finds such as ceramics or bone) works will cease and the Amey E&S Team will be contacted.
- No materials or waste should be stored in close proximity to any designated cultural heritage asset.

It has been determined that the proposed project will not have direct or indirect significant effects on cultural heritage due to the like-for-like nature of the scheme, and its containment within the carriageway extents. Providing all works operate in accordance with current best practice, the residual impact to cultural heritage is considered to be neutral.

Biodiversity

Impacts:

- There is potential for protected species to be active within the local surrounding area and for the works to result in disturbance.
- During night-time programming, misdirected site lighting could cause disturbance to any surrounding nocturnal species.
- During night-time programming, additional noise from construction activities could cause disturbance to any surrounding nocturnal species.
- Due to the qualifying features of the nearby designated site, there is potential for noise and light disturbance for nearby breeding birds.
- As the works are being undertaken during the main bird breeding season (March-April time), there is potential for nesting birds to be affected if the appropriate controls are not adhered to.

- There is potential for the works to impact upon the designated European Sites located within 30m of the scheme extents at their closest point. Pollution incidents have the potential to impact upon these sites and the habitats they are designed to protect should the appropriate mitigation measures in place be inadequate and/or not followed.

Mitigation

- All temporary lighting will be directional and pointed away from sensitive ecological receptors (such as woodland areas and the SSSI/SAC/SPA) to minimise disturbance to nocturnal species.
- All site operatives will be made aware of and briefed on the appropriate designated sites and the associated risks involved regarding the scheme and the surrounding habitats.
- All works and storage of plant, machinery, vehicles and equipment will be restricted to the carriageway boundary.
- Vehicles or machinery will not be parked or left to rest on any of the soft verges.
- In the event of observing a protected species on the live working site, all works will temporarily stop until the animal has moved on. The site control room will be contacted for environmental record.
- 'Soft start' techniques will be utilised with noise heavy equipment/plant/machinery in order to deter any potential noise sensitive species present in the area. This technique will act as a deterrent to the recipients and allows for any potential damage to the recipients to be mitigated as incremental increases in noise levels are made.
- Additional Noise mitigation measures as outlined in the Noise and Vibration section below will be adhered to during the works.
- If works are significantly delayed, further assessment may be required to reassess the risks related to the qualifying features of the designated European sites situated nearby.
- Works and storage of equipment will be kept within the carriageway extents on hardstanding ground, particularly when in close proximity to the designated European sites.
- Due to the transient nature of these works, it is unlikely that the designated European sites listed above and the flora/fauna inhabiting these areas will be adversely affected by the scheme however, due to the proximity of the designated sites, a Stage 1 Habitat Regulations Appraisal (HRA) has been undertaken for this scheme. This assessment was able to conclude that there would be no likely significant effects on the surrounding designated European Sites. The nature of the works in question, combined with the appropriate pollution prevention and control measures detailed within this document and the associated IER have allowed for this conclusion.

- Noise and vibration levels generated as a result of the scheme will be comparable to baseline levels and the works will be contained within the carriageway area.
- The surrounding habitat has been reviewed by an ecologist via a desktop survey and due to the nature of the works, an ecological site survey has been scoped out for this scheme. The effects of the scheme (such as short terms works, the transient nature of the works and noise and vibration levels being comparable to baseline levels etc.) combined with appropriate mitigation measures being implemented via this report have allowed for a field survey to be deemed not required and a desk survey deemed sufficient.

It has been determined that the proposed project will not have direct or indirect significant effects on biodiversity; providing all works operate in accordance with current best practice, the residual impact to biodiversity is considered to be neutral.

Geology and soils

Impacts

- Works have the potential to detrimentally impact the soil and geology of the embankments surrounding the carriageway should vehicles/plant/HGVs require to be placed/parked on the verge.
- Works have the potential to detrimentally impact the Bullers of Buchan Coast GCRS area.

Mitigation:

- Plant and machinery will not be placed on the verge.
- All works and storage of plant, machinery, vehicles and equipment will be restricted to the highway boundary.
- The pollution prevention measures as described in the Road Drainage and Water Environment section will be adhered to.
- Site operatives should be made aware of the Bullers of Buchan Coast GCRS, located approx. 20m east of the carriageway extents.

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

Material assets and waste

Impacts

- The design life for the TS2010 surfacing proposed is estimated to be 20 years. This will reduce the requirement for maintenance to this section of road over the period.
- The works may result in contribution to resource depletion through use of virgin materials.
- Transportation and recovery of materials/waste will require energy deriving from fossil fuel, a non-renewable source.

Mitigation

- Materials will be derived from recycled, secondary or re-used origin as far as practicable within the design specifications to reduce natural resource depletion and associated emissions.
- Uncontaminated road planings arising from the works will be fully recycled in accordance with guidance on the Production for Fully Recovered Asphalt Road Planings.
- The disposal of special waste is also subject to obtaining a SEPA consignment note and providing advance notice of at least three days prior to any waste movement.

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

Noise and vibration

Impacts

- TS2010 road surfacing is shown to have superior durability and noise reducing features compared to standard road surfacing mixes. Vehicle travellers and nearby residential properties will benefit from improved road surfacing as a result of the scheme.
- Works taking place during night-time hours could cause disturbance for residential properties in close proximity or connected to the scheme and for the nearby amenity users. It is also anticipated that noise heavy works could cause day-time disturbance.

Mitigation

- The Amey E&S team will contact Aberdeenshire Council's Environmental Health Team prior to the commencement of the works.
- Residential properties affected by the scheme and within 300m will be notified in advance of the works. Pre-notification will include details of proposed timings and duration of the works.
- The noisiest works will be completed before 23:00 where feasible.
- Plant/machinery will be fitted with silencers/mufflers.
- No plant, vehicles or machinery will be left idling when not in use.

Due to the nature of the works in question and provided that mitigation measures and best practice is followed, temporary negligible adverse effects from noise and vibration are predicted during construction, with residual effects deemed neutral.

Population and human health

Impacts

- There is potential for the laybys to be temporarily blocked. There is also the potential for access points to residential properties/streets to be impacted by the scheme, combined with access to Stirlinghill quarry and the various field access points.
- TM is likely to cause delays and disturbance to carriageway users.
- The bus stops within the scheme extents will likely be inaccessible during the works.
- Core paths and cycleways surrounding the scheme are likely to be unaffected.

Mitigation

- TM restrictions/arrangements and any expected travel delays will be publicised within the local and wider area, in an effort to minimise disturbance to vehicular travellers.
- Layby closures, if required, will be advertised on approach.
- Properties affected by the scheme will be notified in advance of the works. Pre-notification will include details of proposed timings and duration of the works. Properties with access points likely to be affected will also be notified with access being granted if no alternative routes are available.
- Bus stop closures will be advertised in advance of the works.

Due to the nature of the works in question and provided that mitigation measures and best practice is followed, temporary negligible adverse effects are predicted on the surrounding population during construction, with residual effects deemed neutral.

Road drainage and the water environment

Impacts

- If not adequately controlled, debris and run off from the works could be suspended in the surface water. In the event of a flooding incident, this debris may be mobilised and could enter the road drainage having a detrimental effect on the surrounding local water environment.
- Potential for spills, leaks or seepage of fuels and oils associated with plant to escape and reach drainage systems and watercourses if not controlled, which may negatively affect the water environment. These may also detrimentally affect the flora, fauna, and soil quality at the designated SSSI, SPA and SAC located to the east of the scheme.
- Should flooding occur, this may delay the scheduled works. Weather should be monitored throughout the scheme in order to avoid and prepare for any detrimental effects caused by precipitation.

Mitigation

- All debris which has the potential to be suspended in surface water and wash into the local water environment will be cleaned from the site following the works.
- Debris and dust generated as a result of the works will be prevented from entering the drainage system. This will be via the use of drain covers or similar.
- Appropriate measures will be implemented onsite to prevent any potential pollution to the natural water environment (e.g., debris, dust, and hazardous substances). This includes spill kits being present onsite at all times, and the use of funnels and drip trays when transferring fuel.
- Visual pollution inspections of the working area will be conducted frequently, especially during heavy rainfall and wind.
- Weather reports will be monitored prior and during all construction activities. In the event of adverse weather/flooding events, all activities will temporarily stop, and only reconvene when deemed safe to do so, and run-off/drainage can be adequately controlled to prevent pollution.
- Bunds will be provided around drums up to 205 litres with a buffer of 25% of their capacity.
- Bunds will be provided around bulk storage to a capacity of 110% of the stored fuel/oil.
- All oils and fuels will be returned to storage area after use.

- Storage areas will be located away from areas that see high vehicular movement to prevent accidental damage.
- All plant and fuel storage at the site compound will be located on hardstanding and more than 10m from any watercourse.
- All site operatives will be briefed on the [Guidance for Pollution Prevention \(GPP\)](#) documents (namely, GPP 1, GPP 2, GPP 5, PPG 6, GPP 8 and GPP 22) prior to working on site. This guidance will be adhered to on site at all times.

It has been determined that the proposed project will not have direct or indirect significant effects on road drainage and the water environment. Providing all works operate in accordance with current best practice, as demonstrated by SEPA's GPPs, the residual impact on the local water environment is considered to be neutral.

Climate

Impacts

- GHG emissions will be emitted through the use of machinery, vehicles and materials used (containing recycled and virgin materials) and transporting to and from site.

Mitigation

- Local suppliers will be used as far as reasonably practicable to reduce travel time and GHG emitted as part of the works.
- Vehicles/plant will not be left on when not in use to minimise and prevent unnecessary emissions being emitted.
- Further actions and considerations for this scheme are detailed in the above Material assets and waste section.

It has been determined that the proposed project will not have direct or indirect significant effects to climate.

Vulnerability of the project to risks

As the works will be limited to the like-for-like replacement of the carriageway structure, there will be no change in vulnerability of the road to risk, or in severity of major accidents/disasters that would impact on the environment.

It has been determined that the proposed project is not expected to alter the vulnerability of the existing trunk road infrastructure to risk of major accidents or disasters.

Assessment cumulative effects

The [Scottish Road Works Commissioner's](#) Interactive Map has not highlighted any proposed works within proximity to the scheme around the time of these works.

[Aberdeenshire Council's planning portal](#) does not highlight any proposed developments or planning applications on the A90 carriageway within proximity to the scheme.

Amey's current programme of works has not highlighted any ongoing works during the proposed timescale and at the location of the proposed works.

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

Assessments of the environmental effects

Following assessment as detailed within this Record of Determination, and provided that mitigation measures are in place and best practice is followed, the residual impact is deemed neutral and there will be no significant effects on the environment.

The following environmental surveys/reviews have been undertaken:

- An Initial Environmental Review of the scheme, undertaken by the Environment and Sustainability Team at Amey in December 2022.
- A Habitats Regulations Appraisal Stage 1 Screening Assessment was undertaken by the Environment and Sustainability Team at Amey in January 2023.

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.

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:

- Construction activities are restricted to the approximate 19500m² (1.95ha) area of existing carriageway.
- At end of life, components can be recycled, reducing waste to landfill.
- Uncontaminated road planings will be recycled in accordance with Guidance on the Production for Fully Recovered Asphalt Road Planings.
- Materials will be derived from recycled, secondary or re-used origin as far as practicable within the design specifications.
- The chosen material TS2010 Surface Course allows a wider array of aggregate sources to be considered when compared to typical SMA.
- The design option conveys sustainability benefits by significantly reducing the quantity of maintenance interventions required at the location.
- As the scheme is located less than 2km from two designated European Sites (namely the Buchan Nest to Collieston (SPA) (20m) and Buchan Nest to Collieston (SAC) (20m), a Stage 1 Habitat Regulations Appraisal (HRA) has been undertaken. This assessment was able to conclude that there would be no likely significant effects on the surrounding designated European Sites and their associated habitats/features. The nature of the works in question, combined with the appropriate pollution prevention and control measures detailed within the HRA (and subsequently, this document and the associated Initial Environmental Review) have allowed for this conclusion. The transient nature of the works and their containment within the carriageway extents have also contributed towards this conclusion.

Location of the scheme:

- The scheme will be confined within the existing carriageway boundaries and as a result will not require any land take and will not alter any local land uses.
- The scheme is not situated in whole or in part in a “sensitive area” as listed under regulation 2 (1) of the Environmental Impact Assessment (Scotland) Regulations 1999 (as amended).

Characteristics of potential impacts of the scheme:

- The successful completion of the scheme will afford benefits to carriageway users and residential properties in proximity, due to improved condition and ride quality of the carriageway surface.

- The use of TS2010 road surfacing affords the benefits of a reduction in mid to high frequencies of traffic noise and a reduction in ground vibrations. As a result, ambient noise levels should decrease post construction.

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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