



**TRANSPORT  
SCOTLAND**  
CÒMHDHAIL ALBA

# **Record of Determination**

## **A9 Mound Sluices**

## Contents

<b>Project Details</b> .....	<b>3</b>
Description .....	3
Location .....	4
<b>Description of Local Environment</b> .....	<b>5</b>
Population and Human Health .....	5
Biodiversity .....	5
Land .....	7
Soil .....	8
Water .....	8
Air .....	9
Waste.....	9
Cultural Heritage .....	10
<b>Description of Main Environmental Impacts and Proposed Mitigation</b> .....	<b>10</b>
Population and Human Health .....	10
Biodiversity .....	11
Land .....	14
Soil .....	14
Water .....	15
Air .....	17
Waste.....	18
Cultural Heritage .....	19
Vulnerability of the Project to Risks .....	20
Cumulative Effects .....	20
<b>Assessments of the Environmental Effects</b> .....	<b>20</b>
<b>Statement of case in support of a Determination that a statutory EIA is not required</b> .....	<b>21</b>

## Project Details

### Description

The Mound Sluices structure is a Category A Listed Building. The Mound Sluices were constructed between 1814 and 1816 under the direction of Thomas Telford as part of the scheme to build a causeway across Loch Fleet. The sluices are part of a bridge structure at the northern end of the causeway and separate the River Fleet from the sea. The structure consists of six masonry arches, each containing two wooden sluice gates to make twelve gates in total. The sluice gates prevent the ingress of sea water at high tide, but allow fresh water from the River Fleet to flow out as the tide falls.

Inspections of the structure have identified a number of maintenance issues that require rectification, including that a number of the sluice gates within the structure are no longer watertight and permit a degree of water leakage. The remedial works will involve replacement of all twelve wooden gates and the wooden and steel strapping within the arches. Repointing of the masonry arches with lime mortar and replacement of any stone as required will also be undertaken. Where possible, the arches which leak the most will be prioritised in the programme of works.

Works will be conducted within a dry working area which will encompass two of the six arches at any one time (i.e. four gates). It is anticipated that the dry area will be created using weighted trench boxes. Water level data is available for both the freshwater and salt water levels at the structure from 2014 until present and the dry works area will be designed in line with best practice for temporary works within the water environment. While two arches are contained within the dry works area, the sluice gates within the remaining four arches will continue to function as normal (i.e. gates can be opened and closed to water flows). During the works the remaining operational sluice gates will be opened to full extent in response to high water, using the current water trigger level as an initial indicator. Manual operation of the gates to open them to their full extent will be undertaken should intense or prolonged precipitation events be forecast during the works period, if conditions allow. This will ensure the inundation regime of the woodland is maintained throughout the works period. Water levels will be monitored throughout the works. Over-pumping will be required initially to create the dry works area and then sporadically as required due to seepage and rainfall. Filters will be placed over the intake for any water pumps required in the dry working area, in order to prevent sediment release.

The works will take up to six months in total to complete (6 to 8 weeks per two-arch section). The main works will be undertaken between June and September inclusive (low flow periods), with the potential for some pre-works/site set-up ahead of this period to facilitate quick start-up of the main works in June. There will be no working in the water in the months of April-May (inclusive) to reduce the risk to ground-nesting wetland birds. The programme of works has yet to be finalised; however, the completion of all six arches in one year is very unlikely within the working window. Therefore, it is anticipated that the works will either be undertaken over two years (4 arches in year one, and 2 arches in year two), or over three years (two arches each year). There will be no 24-hour working on site; working hours are anticipated to be 7am-7pm.

A crane, operated from the bridge, will be required to lift components and equipment into and out of the works area but it is not anticipated that any large plant, with the exception of water pumps, will be required within the dry works area. Any plant will be banded/on drip trays to prevent pollution.

The construction compound will be located in the car park adjacent to the Mound Sluices structure. The car park will be closed to visitors during this time.

The works are necessary for management of the Mound Alderwoods Special Area of Conservation (SAC) for nature conservation. In 2010 the alder woodland was assessed as being in Unfavourable Declining condition and one of the reasons for this was thought to be increased inundation due to ineffectual operation of the sluice gates. In an attempt to rectify the situation, the sluice gates were automated in 2017 and a new operational plan created in agreement with NatureScot (formerly Scottish Natural Heritage (SNH)) and SEPA. A number of maintenance issues were identified at a recent inspection and if the condition of the Mound Sluices is allowed to deteriorate, this management will become ineffective and the predicted benefit to the alder woodlands will be reduced.

## Location

The A9 Mound Sluices are located at the mouth of the River Fleet where it flows into Loch Fleet, south of Golspie (Figure 1 and 2).



Figure 1 - Scheme Location



Figure 2 - Scheme Plan

## Description of Local Environment

### Population and Human Health

The scheme is in a rural location where noise and vibration levels will be primarily influenced by trunk road traffic, vehicles utilising the adjacent car park, the Far North Line railway and anthropogenic activities within adjacent residential properties. Sensitive receptors are as detailed in the Air and Climate section. The A9 provides the main link from Perth to Thurso and is circa 270 miles long.

There are no designated footpaths located within or within close proximity to the scheme extents. A car park is located adjacent to the Mound Sluices, with access taken from the southbound lane just south of the trunk road bridge. This car park provides parking for tourists and visitors to the area and provides information and interpretation panels on the Mound Sluices and local wildlife on Loch Fleet NNR. This parking area also leads over the Mound Sluices and provides access to Keeper's Cottage and Mound Station.

There are no formal cycle routes within the scheme extents; nevertheless, long distance cyclists may use the trunk road within the scheme extents. Equestrians are unlikely to use the A9 at this location, due to the high-speed nature of the traffic and the availability of more appropriate trails and bridleways in the wider surrounding countryside.

### Biodiversity

Baseline data have been obtained from the National Biodiversity Network (NBN) Atlas, NatureScot Sitelink and Scotland's Environment (SE) web online mapping tools.

A number of designated sites were identified on NatureScot Sitelink which were within, or had connectivity to, the proposed works. The Mound Alderwoods SSSI and

Loch Fleet SSSI lie north and south of the works respectively with the Mound Sluices forming the boundary. The Mound Alderwoods SAC occupies a similar area to the Mound Alderwoods SSSI with the Loch Fleet National Nature Reserve (NNR) occupying a similar area as the Loch Fleet SSSI. The Dornoch Firth and Loch Fleet Ramsar and Special Protection Area (SPA) occupy an area both north and south of the Mound Alderwoods.

Consultation was carried out with NatureScot, which confirmed that a Habitats Regulations Appraisal (HRA) would be required. As part of the HRA process, BEAR Scotland commissioned Jacobs to compile a Statement to Inform Appropriate Assessment (SIAA) to assess potential impacts of works on Mound Alderwoods SAC, Dornoch Firth and Loch Fleet SPA, and Dornoch Firth and Loch Fleet Ramsar site. The SIAA concluded that the works would not result in likely significant effects (LSE) on any of the qualifying features of these sites. NatureScot agreed with the conclusions of the SIAA.

Mound Alderwoods SSSI and Loch Fleet SSSI occupy similar areas to one or more of the Natura 2000 sites listed above. Mound Alderwoods SSSI is notified for its breeding bird assemblage, saline lagoon and wet woodland and lies north of the Mound Sluices. Loch Fleet SSSI lies to the south of the Mound Sluices and is notified for breeding bird assemblage, eelgrass beds, eider (*Somateria mollissima*), non-breeding, native pinewood, saltmarsh, sand dunes, sandflats and vascular plant assemblage.

The Mound Sluices lie directly adjacent to the Loch Fleet NNR. The scheme is also adjacent to the Loch Fleet and Dornoch and Cuthill Sands Nature Conservation Order (NCO), which is in place to prevent shellfish extraction.

There are areas of woodland recorded on the Ancient Woodland Inventory (AWI) that lie to the north of the Mound Sluices recorded as semi-natural in origin and to the east, beyond the railway line, recorded as Long-Established (of plantation origin).

The NBN Atlas does not record the presence of any invasive non-native species.

An ecological site survey was carried out by BEAR Scotland Environment Team on the 12th February 2019 to assess the presence of protected species within 250m of the scheme extent.

A Preliminary Roost Assessment (PRA) was carried out by Jacobs in November 2019. The following recommendations for further survey were made by Jacobs following the PRA.

### **The Mound Sluices**

Two Winter Hibernation Inspections (WHI) should be undertaken during the core hibernation period (December to February inclusive), but ideally in mid-January and mid-February. A minimum of two bat activity surveys were recommended on The Mound Sluices during the core active bat period (May to September inclusive), with at least one of the surveys conducted in June or July.

## Winch Houses

Two WHIs should be undertaken during the core hibernation period (December to February inclusive), but ideally in mid-January and mid-February. A minimum of two bat activity surveys were recommended on The Mound Sluices during the core active bat period (May to September inclusive), with at least one of the surveys conducted in June or July.

## Small Outbuilding

No WHIs were required as it was assessed as having negligible winter potential. One bat activity survey was recommended during the core active bat period (May to September inclusive).

## Sluice Keeper's Cottage, Cottage Outbuildings and A9 Road Bridge

Roosting features within 30m of works are typically considered for impacts from disturbance. However, in this instance the distance of disturbance (>20m away from works, site compounds, etc.), the nature of the works and the current background level of noise from the A9 road is such that these works are unlikely to pose a disturbance issue. As such, no further surveys were recommended.

WHIs were subsequently undertaken by Jacobs at the sluice gates and winch houses on 30 January 2020 and 26 February 2020. Inspection of the sluice gates were facilitated by a Mobile Elevated Working Platform (MEWP) to allow access at height. All other locations were inspected from the ground. During the WHIs, no bats or evidence of bats was found. This did not change the assessment of the roosting potential of the surveyed sites from the initial PRA assessment.

Bat activity surveys were undertaken by Jacobs throughout July 2020; a summary of these surveys is given in Table 4.

No emergencies or re-entries and no bats showing any interactions or interest in any of the structures were observed during any of the surveys. Recommendations and proposed mitigation are detailed under the assessment section.

## Land

Baseline data have been obtained from SE web and Google Maps online mapping tools.

Land cover in the surrounding area is dominated by marine habitats, inland surface waters and a variety of woodland types. A list of all habitats recorded within 300m are detailed below.

- Inland surface waters
- Highly artificial coniferous plantations
- Fens, mires, sedge- and reedbeds
- Early-stage natural and semi-natural woodlands and regrowth

- Non-riverine woodland with *Betula*, *Populus tremula* or *Sorbus aucuparia*
- Marine habitats
- Broadleaved swamp woodland
- Coastal dunes and sandy shores
- Broadleaved deciduous woodland
- Grasslands and lands dominated by forbs, mosses or lichens
- Coniferous woodland
- Private roads, publically accessible and restricted

Loch Fleet is an important estuary supporting a wide variety of bird species. The scheme is located near Golspie, which is a popular stop on the North Coast 500 tourist route. Outdoor recreation is popular in the area.

The works do not lie within any sites designated for landscape interests. Views from the Mound Sluices and the A9 trunk road and bridge are expansive views down Loch Fleet to the east and the saline lagoon to the west. The causeway carrying the A9 is a key feature of the landscape and views from the Mound Sluices structure are dominated by the existing A9 trunk road bridge to the east.

## Soil

Baseline data have been obtained from the British Geological Survey (BGS) online mapping tool and Scotland's Soils.

The scheme is not located within a Geological Conservation Review Site (GCRS).

Bedrock within the scheme extent is comprised of Langwell Conglomerate Member - Conglomerate, which is a sedimentary bedrock.

Superficial deposits within the scheme extent are recorded as Marine Beach Deposits – Gravel, Sand and Silt and Raised Marine Deposits, Devensian – Gravel, Sand and Silt, both of which are sedimentary deposits.

Soils within the scheme extent are recorded as humus-iron podzols and mineral alluvial soils.

## Water

The Mound Sluices span Loch Fleet and divide it into two sections (coastal and mainland). The coastal section (SEPA ID: 200475) has been designated as a heavily modified water body on account of physical alterations that cannot be addressed without a significant impact on a major transport route and protected habitats and species. It was classified by SEPA in 2018 as having 'good ecological potential'. The mainland section (200331) was classified by SEPA in 2018 as having an overall status of 'Good'.



The River Fleet flows into Loch Fleet (mainland section) approximately 370m northwest of the Mound Sluices. It was classified by SEPA in 2018 as having an overall status of 'Good'.

The Mound Sluices lie on the boundary of the Brora and Golspie groundwater bodies which were both classified by SEPA as having an overall condition of good in 2018. Both groundwater bodies are also Drinking Water Protected Areas (Ground).

Marine Scotland were consulted and confirmed that a Marine Licence would be required to authorise the proposed works as some of the repair works will take place on the coastal section of Loch Fleet (i.e. below mean high water springs). As the works at the Mound Sluices comprise maintenance of an existing structure and will not extend the structure beyond its current footprint or change its structural characteristics, authorisation for these works from SEPA is not required.

## Air

Baseline data have been obtained from the Air Quality in Scotland (AQS) and Google Maps online mapping tools. A walkover survey was used to note any potential connectivity with properties/receptors identified during the desktop study.

There are a few residential properties within 1km of the scheme extents including Keeper's Cottage and Mound Station which lie north of the Mound Sluices but south of the railway line and Crann Faibhile (Beech Tree Lodge B&B) and Cuilfail which lie beyond the railway line and are accessed from the A839 minor road.

The site does not lie within an Air Quality Management Area (AQMA). No air quality monitoring stations are located in proximity to the scheme, with the closest approximately 48km distant in Strath Vaich. The latest pollution level was recorded as Low (2) on 15th December 2020 and is considered to be comparable to the site location due to its rural nature.

Air quality within the scheme extents is likely to be primarily influenced by trunk road traffic, vehicles utilising the adjacent car park, the Far North Line railway and anthropogenic activities within adjacent residential properties.

The Mound Sluices sits on the coast between Dornoch and Golspie. The climate here is classified as warm and temperate. Dornoch and Golspie have a significant amount of rainfall during the year. The prevailing wind direction is from the southwest and west-southwest with 1,172 hours per year where winds speed are at or above 12 mph which is generally considered capable of mobilising and transporting dust.

## Waste

Waste materials will comprise waste timber, steel strapping and mortar that has been removed from the structure. All masonry that can be re-claimed will be reused on site. Waste materials will be disposed of to a licensed waste facility by a licensed waste carrier with the appropriate waste transfer notes in place.

## Cultural Heritage

Baseline data has been obtained from the Historic Environment Scotland (HES) online mapping tool. A walkover survey was used to note any potential connectivity between the scheme and noted features.

The Mound Bridge and Keeper's Cottage are both recorded as Category A Listed Buildings. There are numerous other sites of cultural heritage interest recorded on Canmore and Historic Environment Record (HER).

Listed Building Consent (LBC) is required due to the Category A Listed Building status of the Mound Sluices.

## Description of Main Environmental Impacts and Proposed Mitigation

### Population and Human Health

The Mound Sluices are off line of the A9 trunk road but provide access to a number of residential properties. The Mound Sluices car park will be used as a site compound for the duration of the works and closed to the general public. There will be a temporary impact during construction on vehicle travellers, non-motorised road users and local communities that rely on this access route. This will be managed with appropriate traffic management, which will ensure access to residential properties. With the following mitigation in place during the works, impacts on vehicle users is not anticipated to be significant.

- An appropriate traffic management plan will be designed in accordance with Volume 8, Chapter 4 of the Traffic Signs Manual.
- Consultation will be carried out with road users and residents.

During operation, there will be a slight to moderate beneficial impact on safety for road users, non-motorised road users and local communities using the minor access road at this location as the structure will be maintained ensuring its longevity.

During construction, there will be a temporary impact from noise and vibration. There are a few nearby residential receptors, including the Sluice Keeper's Cottage which lies directly adjacent to the working area. Due to the general openness and lack of natural screening in the area, the noise is likely to be audible to nearby residential properties. Works are programmed to take place during daytime construction hours to reduce noise and vibration impacts. The site compound will utilise the existing Mound Sluices car park which sits to the south of the Mound Sluices on the opposite bank to residential properties. The works will primarily take place within the temporary dry working area set down below residential properties which should further reduce the potential for excessive noise.

With the implementation of the following mitigation, noise and vibration impacts during the construction phase are not predicted to be significant.

- Prior to construction, consultation will be carried out with local residents to inform them of the proposals. Residents will be provided with a 24-hour contact number for the BEAR Scotland control room.
- Working hours and any changes of schedule or procedures must be communicated to local residents throughout the programme.
- The best practice means, as defined in Section 72 of the Control of Pollution Act 1974 and BS5228-1:2009+A1:2014 Code of Practice for Noise and Vibration Control on Construction and Open Sites, will always be employed to reduce noise to a minimum.
- All construction operatives will be briefed through toolbox talks prior to works commencing using the Being a Good Neighbour toolbox talk template.
- Where possible, inherently quiet plant should be selected for construction works.
- All plant, machinery and tools will be well maintained, including parts relating to noise minimisation.
- All plant, machinery, and vehicles will be switched off when not in use.
- Where ancillary plant such as generators are required, they will be positioned so to cause minimum noise disturbance. Where deemed necessary, acoustic screens will be utilised.
- Movement of plant onto and around the site will have regard to minimising noise and will not be left running if not required for immediate use.
- All plant must be operated in a mode that minimises noise emissions and must have been maintained regularly to comply with relevant national and international standards.

With the above mitigation measures in place, noise impacts from works are not expected to be significant during the construction phase. No impacts from noise are expected during the operational phase.

## **Biodiversity**

An appraisal in relation to regulation 48 of the Conservation (Natural Habitats, &c.) Regulation 1994 as amended (Habitats Regulation Appraisal) has been carried out.

The SIAA concludes that there would be no LSE on any of the qualifying features of the designated sites by virtue of the nature of the works, works programming and working methods. Consultation was carried out with NatureScot.

Overall, it was concluded that the Mound Sluices and surrounding buildings were not used by bats as winter or summer roosts. Low levels of commuting bat activity were recorded during the activity surveys.

There is some suitable habitat for nesting birds on site; however, due to high levels of tourist and pedestrian activity in the area, it is not expected that birds will be nesting in the vicinity of the Mound Sluices. A pre-works inspection for nesting birds should be carried out within 24 hours prior to works. If nesting birds are found on the structure or within a disturbance buffer of works (approximately 15m, dependent on

species and type of works), works must cease until nests are no longer active or until an appropriate method statement or mitigation plan is developed to reduce/remove disturbance to the nest.

Provided the following mitigation measures are adhered to during the works, potential impacts on designated sites and species during construction are not anticipated to be significant.

- Works will be conducted within a dry working area which will encompass two of the six arches at any one time.
- While two arches are contained within the dry works area, the sluice gates within the remaining four arches will continue to function as normal (i.e. gates can be opened and closed to water flows). During the works the remaining operational sluice gates will be opened to full extent in response to high water, using the current water trigger level as an initial indicator. Manual operation of the gates to open them to their full extent will be undertaken should intense or prolonged precipitation events be forecast during the works period, if conditions allow. This will ensure the inundation regime of the woodland is maintained throughout the works period.
- The main works will be undertaken between June and September inclusive (low flow periods), with the potential for some pre-works/site set-up ahead of this period to facilitate quick start-up of the main works in June.
- There will be no working in the water in the months of April-May (inclusive) to reduce the risk to ground-nesting wetland birds.
- The works will avoid wintering bird season (October – March inclusive)
- 24-hour working will be avoided leaving a period of 'quiet time' each day for osprey to forage undisturbed near the sluices.
- Best practice construction methods will be employed, including adherence to Guidance for Pollution Prevention (GPPs), specifically, but not limited to, GPP5: Work and maintenance in or near water. Prior to the commencement of works, the contractor will produce a Pollution Prevention Plan.
- A nesting bird check will be carried out two weeks prior to any works or vegetation clearance that takes place during the breeding bird season (March to August inclusive). This is recommended to identify any active nests that may be impacted by works prior to mobilisation and thereby provide advance information on potential constraints to the works programme.
- A pre-works inspection for nesting birds should be carried out within 24 hours prior to works.
- If nesting birds are found on the structure or within a disturbance buffer of works (approximately 15m, dependent on species and type of works), works must cease until nests are no longer active or until an appropriate method statement or mitigation plan is developed to reduce/remove disturbance to the nest.

- As works are programmed to during the active bat season of summer 2021 (April to September inclusive), no further bat surveys are required prior to their commencement.
- As it is expected that works will be split over a number of subsequent summers, further bat surveys will be required in future to ensure that bat data remains valid. It is recommended that two bat activity surveys are undertaken on the sluice gates and one activity survey on each winch house to update the baseline data to facilitate works in summer 2022. These should be undertaken in 2022 prior to works commencing that summer. Additionally, one at-height WHI of the sluice gates and one ground-level inspection of each winch house should be undertaken to facilitate works in summer 2022. These should be undertaken in January or February 2022 prior to works commencing in summer 2022. If works are to be undertaken in summer 2023, further surveys may be required, depending on the results of the 2022 bat surveys.
- All construction operatives are to be briefed through toolbox talks prior to works commencing. The talks are to specifically cover ecology, field signs of species and legislation. Briefings are to be clear and unambiguous, with all staff informed to stop works where a concern is raised. Works may not commence until advice from an appropriately qualified ecologist is sought and appropriate mitigation is in place, where required.
- All material, machinery, and equipment will be subject to checks for resting mammals daily prior to any works commencing to prevent entrapment or injury of any mammals.
- A 'soft start' will be implemented on site each day. This will involve switching on vehicles and checking under/around vehicles and the immediate work area for animals prior to works commencing to ensure none are present and that there is a gradual increase in noise.
- Any excavations, exposed pipes/drains, or areas where an animal could become trapped (e.g. storage containers) will be covered over when not in use, at the end of each shift, and following completion of works to avoid animals falling in and becoming trapped.
- If fencing is utilised at any point during works, a gap of 200mm from ground level must be provided, allowing free passage for animals and preventing entrapment.
- Artificial lighting required for work during low light levels should be directed away from Loch Fleet, road verges, trees, or other suitable habitat as much as is safe and reasonably practicable.

As concluded in the SIAA there will be no LSE on any of the qualifying features of the designated sites. It is considered that the proposed works are necessary for management of the Mound Alderwoods SAC. In light of the working method described above, there will be no significant impacts on any of the other sensitive receptors detailed above.

## Land

During the construction phase, there will be a temporary visual impact as a result of temporary works set up, site compound set up, vehicles and plant in the vicinity of the works.

The following mitigation measures will reduce impacts of works on the landscape during the construction and operational phases:

- Throughout all stages of the works, the site must be kept clean and tidy, with materials, equipment, plant, and wastes appropriately stored, minimising the landscape and visual effects.
- Works are to avoid encroaching on land and areas where work is not required or does not have permission to do so. This includes general works, storage of equipment/containers and parking.
- The working area and site compound location are to be appropriately reinstated following works.
- The site is to be left clean and tidy following construction.

Repairs will be like-for-like and therefore no long-term landscape impacts are anticipated as a result of the proposed works.

There will be no loss of land or change in land use as a result of the works. During construction, the parking facilities will be utilised as a site compound and therefore no encroachment on unmade ground is proposed.

## Soil

There are no GCRS within the work footprint. There is the potential to disturb ground surrounding the site compound during construction.

Provided the following mitigation measures are followed during works, impacts during construction are not anticipated to be significant.

- Upon completion of the works, any damage to the local landscape (i.e. damage to grass verges) should be reinstated as much as is practicable.
- Mitigation measures to prevent contamination of soils through loss of containment are discussed in the Water Section.
- Mitigation measures described in the Biodiversity Section will be followed to reduce potential impacts on soils.

The works will not result in significant impacts to geology and soils during the operation phase as the works do not lie within any site designated for geology and soils.

## Water

There is potential for an impact on water quality during construction as a result of potential spillage of fuels, oils and mobilisation of silt. This will be greatly reduced as works will be carried out within a dry working area.

Marine Scotland were consulted and confirmed that a Marine Licence would be required to authorise the proposed works as some of the repair works will take place on the coastal section of Loch Fleet (i.e. below mean high water springs). As the works at the Mound Sluices comprise maintenance of an existing structure and will not extend the structure beyond its current footprint or change its structural characteristics, authorisation for these works from SEPA is not required.

Provided the following mitigation measures are adhered to throughout the works, impacts during the construction phase are not predicted to be significant.

- All conditions of the Marine Licence are to be complied with, a copy of which will be supplied to the successful contractor.
- A copy of the Marine Licence must also be kept on-site at all times.
- Prior to commencement of works, the contractor will produce a Pollution Prevention Plan to include measures such as:
  - The use of drip trays/bunds for machinery.
  - Availability of spill kits and staff trained in their use.
  - Use of filters/screens on any water pumps.
  - Appropriate storage of chemicals and fuels away from waterbodies.
  - The implementation of an appropriate pollution incident response plan.
- Works will be carried out in a dry working area.
- Over-pumping will be required initially to create the dry works area and then sporadically as required due to seepage and rainfall. Filters will be placed over the intake for any water pumps required in the dry working area in order to prevent sediment release.
- No discharges into any watercourses or drainage systems are permitted.
- All plant and equipment must be regularly inspected for any signs of damage and leaks. A checklist will be present to make sure that the checks have been carried out.
- All on-site activities should operate in accordance with relevant SEPA Pollution Prevention Guidelines (PPGs) and Guidance for Pollution Prevention (GPPs).
- All hazardous material will be stored in accordance with Control of Substance Hazardous to Health (COSHH) data in a designated storage area at least 10m away from any watercourses, drains and / or waterbodies.
- The designated storage area must be on impermeable ground and fully bunded.

- All hazardous material utilised on site is required to undergo assessment under the COSHH Regulations 2002. These assessment(s) will contain a section on environment which highlights any precautions and mitigation requirements.
- All hazardous material will be stored in line with COSHH data within a designated COSHH storage area. Oils and chemicals will be stored in appropriately bunded storage cabinets. The COSHH store will be locked with only appropriate personal having access and an inventory register being maintained.
- Where applicable and practicable, bio-degradable hydraulic fluids and oils should be utilised in machinery.
- Where fuel is stored on site and refuelling activities are undertaken, the following will apply:
  - Only suitably double-skinned fuel bowser(s) or tank(s) in line with General Binding Rules the Water Environment (Controlled Activities) (Scotland) Regulations 2011 (as amended) will be utilised on site.
  - The fuel bowser(s) and/or tank(s) must be stored at least 10m away from any watercourses, waterbodies or drains and away from being struck by plant and machinery.
  - All distribution and fuelling nozzles will be fitted with a shut-off valve.
  - All refuelling activities are to be undertaken in a designated site with a drip tray positioned underneath the nozzles when not in use.
  - All fuel containers and nozzles are to be secured, for example with a lock when not in use.
  - All staff undertaking refuelling activities are to be appropriately trained and undertake these activities in line with site refuelling procedures.
- During refuelling of smaller mobile plant, a funnel and drip trays must be used.
- Spill kits must be quickly accessible to capture any spills should they occur.
- The ground / stone around the site of a spill must be removed, double-bagged and taken off site as special contaminated waste.
- Generators and static plant may have the potential to leak fuel and/or other hydrocarbons and should have internal bunding where possible. A secondary containment system should also be in place during use to catch leaks or spills. For example, plant nappies or drip trays with a capacity of 110% should be placed beneath the equipment.
- A spillage control procedure will be in place in which all staff are to be trained.
- Suitable spill kits are to be available on site with all staff to be trained in their use.
- All spills must be logged and reported. In the event of any spills into the water environment, all works must stop, and the incident reported to the project manager and the BEAR Scotland Environment Team. SEPA must be informed of any such incident as soon as possible using the SEPA Pollution Hotline.



- Mitigation detailed in Biodiversity Section will be strictly adhered to.
- The Water Pollution – Silt toolbox talk will be delivered to all site personal as part of the site induction prior to works commencing.
- Pollution prevention measures will be checked daily and more regularly during periods of heavy rainfall.

During operation, there will be a slight beneficial impact on the water environment as leakage of salt water through the sluice gates will be reduced.

## Air

There is potential for temporary impacts on air quality during construction as a result of activities such as the presence of construction traffic and vehicles idling on site. There are not expected to be any materials on site which have the potential to create significant quantities of dust. The adjacent car park to the west of the Mound Sluices will be used as a site compound for all material storage.

Provided the following mitigation measures are adhered to during the works, impacts on air quality during construction are not anticipated to be significant.

- A designated laydown area will be established in the adjacent car park.
- All materials will be stored in the laydown area and only moved to site when they are required.
- All delivery vehicles carrying material with dust potential will be covered when traveling to or leaving site, preventing the spread of dust beyond the work area.
- Material stockpiles will be reduced as much as reasonably practicable by using a 'just in time' delivery system. All material will also be stored on made ground and where feasible 10m away from potential pollution pathways such as drains and watercourses.
- Materials should be removed from site as soon as is practical.
- All plant, machinery and vehicles associated with the scheme must be maintained to the appropriate standards and must switch their engines off when not in use.
- Where possible and in line with Covid-19 restrictions, construction operatives will be encouraged to car-share, use organised company transport or public transport to reduce greenhouse gas emissions.
- Where possible, materials are to be sourced locally to reduce greenhouse gas emissions associated with materials movement.
- Lime mortar bags will remain closed when not in use to prevent cast off to the surrounding environment.
- Any stockpiled material on site will be monitored daily to ensure no risks of dust emissions exists. Where a risk of dust emissions exists from stockpiles, these are to be dampened down. This is likely to require the use of mobile water bowsers.

- Good housekeeping will be employed throughout the works.

The proposed works are not expected to affect air quality during the operational phase as there will be no significant change in traffic levels or dynamics at this location.

## Waste

During construction, there will be a temporary impact as a result of materials and waste.

Provided the following mitigation measures are followed during works, impacts during construction are not anticipated to be significant.

- The waste hierarchy (Reduce, Reuse, Recycle and Dispose) will be employed throughout the construction works.
- Where possible, waste production will be minimised. For example, the provision of reusable cutlery, crockery and water bottles to all on-site staff is strongly encouraged.
- Bulk material will be delivered to site without packaging where possible.
- Supplies are to be requested to minimise all packaging where possible.
- Care is to be taken to only order the correct quantity of required materials, preventing disposal of unused materials.
- Materials should be reutilised where possible.
- Facilities on site will be provided in a designated area to enable the correct segregation of waste, maximising recycling on site. These are to be clearly marked and labelled.
- Wastes not suitable for recycling will be sent to landfill or special waste treatment facilities, depending on the nature of the waste.
- All waste stored on site will be adequately protected against the elements and vermin.
- All appropriate waste documentation must be present on-site and be available for inspection.
- All wastes and unused materials will be removed from site in a safe manner by a licensed waste carrier upon completion of the works. The appointed waste carrier will have a valid SEPA waste carrier registration, a copy of which will be retained by BEAR Scotland. A copy of the waste transfer is also to be provided to BEAR Scotland as early as practicably feasible and retained.
- If required, an exemption from SEPA will be secured to allow for the reuse of materials.

- During the site induction, all staff are to be informed that littering will not be tolerated. Staff are also encouraged to collect any litter seen on site.
- Where applicable, all temporary signage will be removed from site on completion of the works.
- All hazardous material will be stored in line with Section 10.0: Road Drainage & Water Environment.
- A copy of the duty of care paperwork should be provided and filed appropriately in accordance with the Code of Practice (as made under Section 34 of Environmental Protection Act 1990 as amended).
- Any contaminated ground as a result of the works should be removed and transferred off site as special waste.
- Any COSHH waste and special waste should be removed from site by a specialised waste carrier. COSHH waste should NOT be mixed with general waste and/or other recyclables.

All waste will be disposed of safely and legally with regard to Duty of Care. No significant impacts are anticipated during the operation phase.

## Cultural Heritage

The working area will be confined to the Mound Sluices and the adjacent car park. LBC will be secured prior to commencement of the works and any conditions of consent adhered to. The Highland Council have confirmed that the works do not require planning permission and Pre-Application Consultation (PAC) for the LBC is not required. The Highland Council have stated that the justification for repairs should be presented in a Design and Heritage Statement which is being produced by a Historic Buildings Specialist at Jacobs. The Highland Council have highlighted that the proposals must preserve and enhance the character and fabric of the structure, using materials and finishes which match the original/are historically accurate.

Provided the following mitigation measures are adhered to during the works, potential impacts on cultural heritage during construction are not anticipated to be significant.

- All mitigation measures and conditions of the LBC will be strictly adhered to during construction to preserve and enhance the character and fabric of the structure.
- Works will be carried out as detailed in the Design and Heritage Statement.
- If there are any unexpected archaeological finds, works will stop temporarily in the vicinity, the area will be cordoned off and a member of the BEAR Environment team will be contacted for advice.

The works are not anticipated to result in significant impacts on cultural heritage interests during the operational phase. There will be a slight improvement in the condition and functioning of the Mound Sluices Category A Listed Building as a result of the refurbishment works.

## Vulnerability of the Project to Risks

A Site Environmental Management Plan (SEMP) has been produced by BEAR Scotland which sets out a framework to reduce the risk of adverse impacts from construction activities on sensitive environmental receptors. It describes a basis for recording environmental risks, commitments, and other environmental constraints and identifies the processes and measures that will be used to manage and control these aspects. In addition, it seeks to ensure compliance with relevant environmental legislation, government policy objectives, and scheme-specific environmental objectives. It also provides a mechanism for monitoring, reviewing, and auditing environmental performance and compliance. The subcontractor will comply with all conditions of the SEMP during works and may be subject to audit throughout the contract.

A Designer's Risk Register will be prepared by BEAR Scotland which addresses potential environmental risks. Activity-specific Method Statements will be produced by the subcontractor and will recognise and highlight the environmental risks and detail how these will be addressed, as well as the contingency plans to be in place to deal with environmental incidents. These must be approved by BEAR Scotland prior to works commencing.

With the above measures in place, the risk of major accidents or disasters as a result of the works is considered to be low.

## Cumulative Effects

The works are necessary for management of the Mound Alderwoods SAC for nature conservation. In 2010 the alder woodland was assessed as being in Unfavourable Declining condition and one of the reasons for this was thought to be increased inundation due to ineffectual operation of the sluice gates. In an attempt to rectify the situation, the sluice gates were automated in 2017 and a new operational plan created in agreement with NatureScot. A number of maintenance issues were identified at a recent inspection and if the condition of the Mound Sluices is allowed to deteriorate, this management will become ineffective and the predicted benefit to the alder woodlands will be reduced. It is acknowledged by NatureScot that there is an urgency to undertake the works to the sluice gates.

The proposed works will improve the condition of the Mound Sluices structure. Consequently, carrying out these works now will result in long-term benefits to the Mound Alderwood SAC. Therefore, it is not expected that the works will contribute to long-term significant cumulative effects on the environment in the vicinity of the Mound Sluices.

There are no known projects currently planned or recently completed that have the potential to contribute to in-combination or cumulative effects on the nearby designated sites or protected species in the vicinity of Mound Sluices.

## Assessments of the Environmental Effects

The following environmental parameters have been considered within this Record of Determination:

- Air and Climate
- Cultural Heritage and Material Assets
- Biodiversity
- Landscape
- Land
- Population and Human Health
- Water
- Soils and Geology
- Waste, Materials and Use of Natural Resources

Consultation with statutory consultees was deemed necessary because there are potential nature conservation parameters which could be affected during the works. Below is a list of consultees:

- Scottish Environment Protection Agency
- Marine Scotland
- NatureScot (formerly SNH)
- Highland Council Historic Environment Team

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

This is a relevant project falling within Annex II that:

It has connectivity to a number of Natura 2000 sites.

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**

- All in-stream works will be carried out in a dry working area.
- The main works will be carried out between June and September inclusive, when water flows are low.
- There will be no in-stream works in April or May to protect ground-nesting birds.

- There will be no works during the wintering bird season (October to March inclusive).

The works will improve the condition and function of the Mound Sluices, which will be beneficial to Mound Alderwoods SAC.

#### **Location of the scheme**

- The scheme is in a rural location with a low population density.
- The works lie off of the main A9 trunk road route.
- The scheme does not lie within any sites designated for their geology or soils.

#### **Characteristics of potential impacts of the scheme**

- No impacts on any features of cultural heritage interest are anticipated as LBC has been sought and all conditions pertaining to the consent will be adhered to.
- Any impacts on air quality or noise levels are temporary during the construction period. With mitigation measures in place, impacts are minor and not significant.
- Minor short-term impacts are anticipated for vehicle travellers, pedestrians, cyclists, and equestrians. With mitigation measures in place, impacts are minor and not significant.
- There is potential for an impact on water quality during construction as a result of potential spillage of fuels, oils and mobilisation of silt. However, with pollution prevention measures in place, this risk is considered to be negligible.
- No impacts on species are anticipated provided mitigation measures are adhered to.
- NatureScot agree with the view that there will be no LSE on qualifying features of designated sites.
- No change in land use is anticipated.
- No impacts on geology and soils are anticipated.



**TRANSPORT  
SCOTLAND**

CÒMHDHAIL ALBA

© Crown copyright 2021

You may re-use this information (excluding logos and images) free of charge in any format or medium, under the terms of the Open Government Licence. To view this licence, visit <http://www.nationalarchives.gov.uk/doc/open-government-licence> or e-mail: [psi@nationalarchives.gsi.gov.uk](mailto:psi@nationalarchives.gsi.gov.uk)

Where we have identified any third party copyright information you will need to obtain permission from the copyright holders concerned.

Further copies of this document are available, on request, in audio and visual formats and in community languages. Any enquiries regarding this document / publication should be sent to us at [info@transport.gov.scot](mailto:info@transport.gov.scot)

This document is also available on the Transport Scotland website: [www.transport.gov.scot](http://www.transport.gov.scot)

Published by Transport Scotland, May 2021

Follow us:



transcotland



@transcotland

**transport.gov.scot**



**Scottish Government  
Riaghaltas na h-Alba  
gov.scot**