



**TRANSPORT
SCOTLAND**
CÒMHDHAIL ALBA

Environmental Statement Non- Technical Summary

A887 Allt Lagain Bhain Bridge Replacement

Contents

| | |
|------------------------------------------------------------------------------------------|----------|
| Preface | 3 |
| Introduction | 4 |
| Background | 4 |
| Project Location | 5 |
| Environmental Impact Assessment..... | 6 |
| Approach and Methods..... | 6 |
| Alternatives Considered..... | 6 |
| The Proposed Scheme | 7 |
| Description of the Project..... | 7 |
| Consultation..... | 7 |
| Environmental Effects and Mitigation | 8 |
| Cultural Heritage..... | 8 |
| Ecology and Nature Conservation | 10 |
| Design, Mitigation and Enhancement Measures for Ecology and Nature Conservation | 12 |
| Landscape and Visual | 13 |
| Visual Impact..... | 13 |
| Impacts on Landscape Character | 14 |
| Construction Impacts | 15 |
| Road Drainage and the Water Environment | 15 |
| Assessment of Cumulative Effects | 17 |

Preface

This document is the Non-technical Summary (NTS) of the Environmental Statement (ES). The Environmental Statement is the public document that brings together the findings and conclusions of the Environmental Impact Assessment process.

Copies of the ES are available for viewing by the public. These are on display at the following locations:

Transport Scotland
Roads Directorate - Bridges Branch
George House 2nd Floor
36 North Hanover Street
Glasgow
G1 2AD

Highland Council
Charles Kennedy Building
Achintore Road
Fort William
PH33 6RQ

Fort Augustus Post Office
Great Glen Trading Centre
Main Street
Fort Augustus
PH32 4DD

Copies of the Environmental Statement may be purchased (at a charge of £250 for a hard copy) and are also available in USB format (at a charge of £25), or downloaded free of charge at <https://www.transport.gov.scot/projects/a887-lagain-bhain-bridge-replacement/>. All hard copy requests should be made in writing to the Transport Scotland address above or email to TRO-Objections@transport.gov.scot.

Any person wishing to make representation on the ES should write to Transport Scotland at the postal address or email provided above. Representations must be received within 42 days of the advertised date of the publication of the ES.

Introduction

Background

BEAR Scotland has been commissioned by Transport Scotland to replace the existing A887 road bridge which crosses the watercourse known as Allt Lagain Bhain. The A887 trunk road links the A82 at Invermoriston to the A87 at Bun Loyne. This provides a shorter route from Inverness (and other locations along the A82 north of Invermoriston) to Lochalsh and the Isle of Skye. The site is located 10 km west of Invermoriston, approximately 500 m west of the small settlement of Dundreggan.

The existing structure, shown in Figure 1, consists of a single 5 m span bridge which has been propped up since 2001. The existing road bridge is currently in a very poor condition with the main reinforcement being severely corroded. Maintenance repairs are not feasible due to the extent of the work required and it is considered that the bridge has come to the end of its working life.



Figure 1 - Allt Lagain Bhain Bridge

Project Location

The Allt Lagain Bhain Bridge is located along the A887 trunk road in Glen Moriston west of the small settlement of Dundreggan as shown in Figure 2. The River Moriston, including the Allt Lagain Bhain watercourse up to the trunk road bridge, is designated as a Special Area of Conservation (SAC).

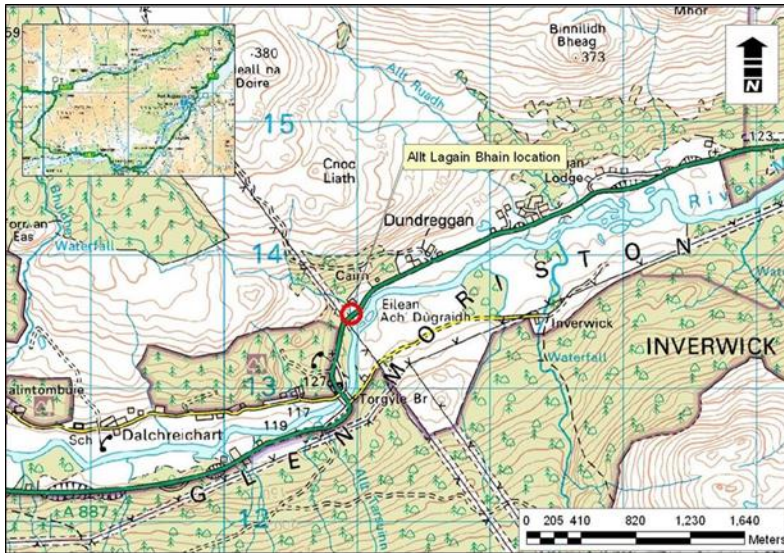


Figure 2 - Project Location

The extent of the potential works area is shown in red on Figure 3.

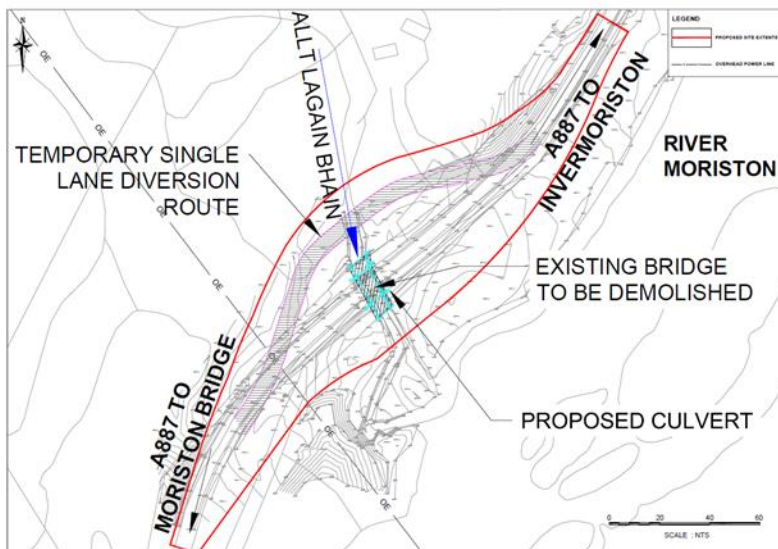


Figure 3 - Extent of Works

Environmental Impact Assessment

A formal Environmental Impact Assessment has been undertaken for this scheme because of the sensitivity of the site. The Environmental Impact Assessment identifies the existing environmental constraints such as watercourses, wildlife and habitats present, sites of historical interest and the character of the landscape in the area. The process then entails assessing the potential impacts of the scheme during construction and after construction (during operation) on the environmental features. The Environmental Statement reports on the findings of the Environmental Impact Assessment and includes measures to avoid, reduce, remedy or offset predicted adverse impacts.

The Environmental Impact Assessment has assisted the scheme design process through consideration of the environmental constraints and development of measures to reduce or avoid adverse impacts on the environment.

Approach and Methods

The Environmental Impact Assessment has been carried out in accordance with guidance set out in Volume 11 of the Design Manual for Roads and Bridges.

The focus of an Environmental Impact Assessment is to determine significant impacts and therefore this Environmental Statement specifically focusses on Cultural Heritage; Ecology and Nature Conservation; Landscape Effects; and Road Drainage and the Water Environment as well as an assessment of Cumulative Effects.

A number of topics have been 'scoped out' as they have been considered not likely to cause significant environmental impacts. These include Air Quality; Land Use; Noise and Vibration; Pedestrians, Cyclists and Community Effects; Vehicle Travellers; and Geology and Soils.

Alternatives Considered

Consideration was given to the following options:

- do nothing;
- strengthening the existing structure through maintenance repairs; and
- complete replacement with a new structure.

The 'Do Nothing' scenario was not considered viable as this would firstly entail a weight restriction being placed on the bridge, resulting in heavy goods vehicles needing to take a long detour. In addition under this scenario, closure of the trunk

road would be the eventual outcome. The second scenario was discounted based on cost benefit analysis, including long-term maintenance considerations. It was determined that the existing bridge had reached the end of its useful life. Therefore the most viable option was to completely replace the old bridge with a new structure and this option is the one taken forward and assessed in the Environmental Statement.

The Proposed Scheme

Description of the Project

The proposed works will entail replacing the existing bridge with a new structure. The existing bridge follows a single track alignment as shown on the photograph opposite. The new bridge will be upgraded to a standard single carriageway width and allow for the eventual upgrading of the short section of single track road lying immediately to the west. There will be no predicted increase in traffic flows as a result of the proposed scheme.

The proposed work includes installing a concrete box structure with an otter ledge on one side. The base of the box structure will be lower than strictly necessary to allow a more natural bed of sediment and gravel to be provided. In addition, boulders will be secured in the stream bed to provide a low-flow channel that migratory fish can pass through.

In order to accommodate the new structure and facilitate safe working, the historic masonry arch bridge lying directly upstream of the trunk road bridge will require to be demolished. The proposed works will need formation of a temporary diversion route to the north of the existing A887 Allt Lagain Bhain Bridge and realignment of a short length of the Allt Lagain Bhain watercourse back to its original line.

The proposed working area during construction is anticipated to be slightly less than 1 hectare as shown in Figure 3.

Consultation

Consultation is a key and fundamental part of the Environmental Impact Assessment process. Chapter 4 of the Environmental Statement describes the consultation undertaken throughout the various stages of the Environmental Impact Assessment process and provides a summary of the key issues raised by consultees. It also includes relevant responses from consultations that were undertaken as part of the Scoping Report.

The following statutory and non-statutory consultees have been consulted to inform the assessment:

- The Scottish Environment Protection Agency (SEPA);
- Scottish Natural Heritage (SNH);
- The Highland Council Historic Environment Team;
- The Ness District Salmon Fishery Board; and
- The Ness and Beaully Fisheries Trust.

Environmental Effects and Mitigation

Cultural Heritage

The Cultural Heritage assessment, reported in Chapter 5 of the Environmental Statement, has been informed by surveys carried out by CFA Archaeology Ltd. The surveys have been used to determine the baseline conditions on site, as well as to record existing cultural heritage assets. The CFA assessment focussed on the existing road bridge and the old stone arch bridge, both of which would be demolished as a result of the proposed works.

A number of features of historical interest were identified in the vicinity of the scheme (see Figure 4) including:

- Old masonry arch bridge;
- A887 trunk road bridge;
- Torgoyle Chapel;
- Torgoyle House;
- Glenmoriston Footprints; and
- Unrecorded ruins.

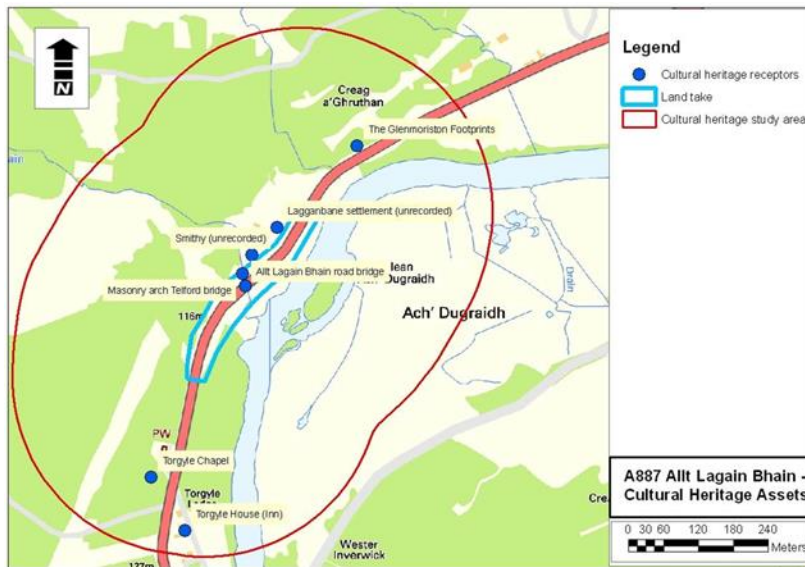


Figure 4 - Cultural Heritage Features

The design of the scheme is such that Torgyle Chapel, Torgyle House (Inn) and Glenmoriston Footprints all lie outside the works area. The location for the site compound is yet to be chosen and there is the possibility of inadvertently damaging these assets through a poorly chosen site. Protection zones around these assets have been identified to prevent this from happening.

CFA's report describes the old masonry arch bridge, shown in the photograph opposite, as being of 'significant historic importance'. In light of this, the design was reconsidered to see if it would be possible to avoid demolition of the old masonry arch bridge. Since the old masonry arch bridge was in such a poor state and almost in contact with the trunk road bridge, from a health and safety perspective it was considered not feasible to leave the bridge in place. In addition, no viable alternative routes for the proposed scheme were identified and as such the CFA report recommended the following:

- a survey and record to be undertaken with a view to creating an accurate and comprehensive record of the bridge; and
- a watching brief to be undertaken during demolition of the old masonry bridge in order to record additional relevant information.

The assessment concluded that the existing A887 road bridge is of little cultural heritage interest. It will have a basic level of recording (rather than the detailed survey and recording proposed for the old masonry arch bridge) prior to being demolished.

Some additional cultural heritage assets (i.e. the smithy and remains at Lagganbane) are partly within the construction working area. Some of these remains are shown in

Figure 5. Where practicable, an exclusion area will be erected around the structures to reduce the risk of inadvertent damage during construction. Where damage cannot be avoided, appropriate recording will be undertaken in close proximity to these structures.

The assessment concluded that although there will be significant impacts on cultural heritage, in particular the old masonry arch bridge, these have been reduced as far as practicable.



Figure 5 - Remains at Lagganbane

Ecology and Nature Conservation

The assessment of ecology and nature conservation is reported in Chapter 6 of the Environmental Statement. The Allt Lagain Bhain watercourse immediately downstream of the road bridge forms part of the River Moriston Special Area of Conservation (SAC) which means the area is of international importance and is protected by legislation. The qualifying interests of the River Moriston SAC are Atlantic salmon and freshwater pearl mussels. The SAC is indicated by the hatching on Figure 6. The A887 trunk road is shown in red.



Figure 6 - Ecology Features

Signs or sightings of the following species were found in the vicinity of the scheme during site surveys: otter; Daubenton's bat; soprano pipistrelle bat; pine marten; Atlantic salmon / brown trout / sea trout; badger; and wood ants. Incidental sightings of bird species were made including great tit, blue tit, chaffinch, treecreeper, buzzard and carrion crow. In addition, a freshwater pearl mussel survey was undertaken but no live mussels were found.

The predominant habitat within the vicinity of the bridge is semi-natural broadleaf woodland. The block immediately to the west of the bridge is listed on the Ancient Woodland Inventory (land that is currently wooded and has been continually wooded since 1750). This block of Ancient Woodland Inventory woodland extends to 2.45 ha and it is anticipated that approximately 0.3 ha lies within the area of the development. The total area of tree clearance, which includes trees not within the Ancient Woodland Inventory, is estimated to be in the region of 0.55 ha. Indicative locations of woodland are shown in Figure 7.

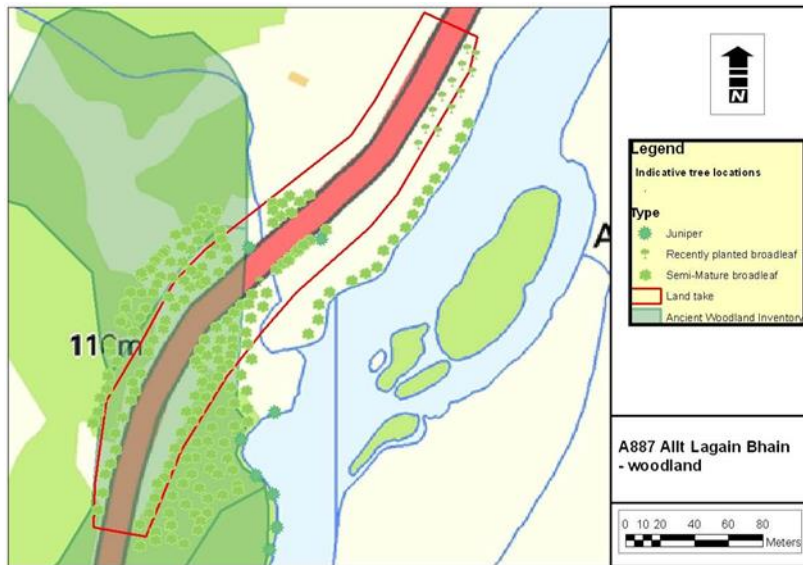


Figure 7 - Woodland Locations

A Daubenton's bat roost was discovered in the old masonry bridge and a small soprano pipistrelle bat roost was found in the A887 road bridge.

Design, Mitigation and Enhancement Measures for Ecology and Nature Conservation

The design and construction of the bridge will be carried out in such a way as to minimise the impact upon the ecological interests and nature conservation designations. Due to the high environmental sensitivity of this site and the risk associated with the proposed works, there will be an experienced Environmental Clerk of Works supporting the construction team and he or she will be present during key activities.

Further ecological surveys by appropriately qualified specialists will be undertaken prior to the works to update the findings presented in the Environmental Statement.

A licence to disturb bats and destroy the two bat roosts will be obtained from Scottish Natural Heritage prior to the works commencing. Durable bat boxes, including hibernation boxes and if practicable, bat bricks, will be incorporated into the new structure and the surrounding habitat as permanent compensation for the loss of the roosts in the bridges to be demolished. A licence is also likely to be required to disturb otters during construction.

Although no live freshwater pearl mussels were found during the survey, the following mitigation measures will be included and will also help to protect salmon, trout and other fish:

- A full crash deck will be erected during the demolition of the existing bridges to prevent debris entering the watercourses;
- Silt fencing will be installed along the banks of the Allt Lagain Bhain within the works area and regularly checked and maintained for the duration of the works.
- No in-channel works will occur during the fish spawning season (the fish spawning season is taken to be 15th October to 31st May).
- Electro-fishing will be carried out to safely remove and relocate fish prior to channel realignment and in-channel works.
- The bed of the channel upstream and downstream of the new bridge will be such that it will not be an obstacle to in-channel fish migration.

Site clearance work will be undertaken out with the bird breeding season. (The bird breeding season is normally taken to be March to September inclusive.) If this is unavoidable, a survey will first be undertaken for breeding birds by a suitably-qualified ecologist and clearance works would only be able to go ahead if breeding birds are not disturbed.

The assessment concluded that there would be significant effects on ecology and nature conservation but that these will be reduced as far as practicable. For example, in the case of the loss of the bat roosts, bat boxes will be provided.

Landscape and Visual

An assessment of the landscape and visual effects of the proposed scheme is included in Chapter 7 of the Environmental Statement. Landscape is regarded as an important national resource in Scotland and it is valued for its intrinsic beauty and its contribution to regional identity and sense of place.

Landscape and visual impacts have been determined by assessing the degree of change resulting from the works. This includes building the new bridge and road tie-ins, removal of the existing structures, removal of trees and associated earthworks.

Visual Impact

Visual impact assessment is the process whereby the effects of the proposed scheme on current views from selected locations are considered. Three viewpoints were selected and considered in the Environmental Statement, namely, VR1 (drove road), VR2 (Inverwick minor road) and VR3 (A887 trunk road) shown on Figure 8.

There will be no or minimal change to views from the drove road (VR1) during the summer. The new bridge will be more visible during the winter, but with the incorporation of planting, there will, in time, only be a slight effect on the view from this location.

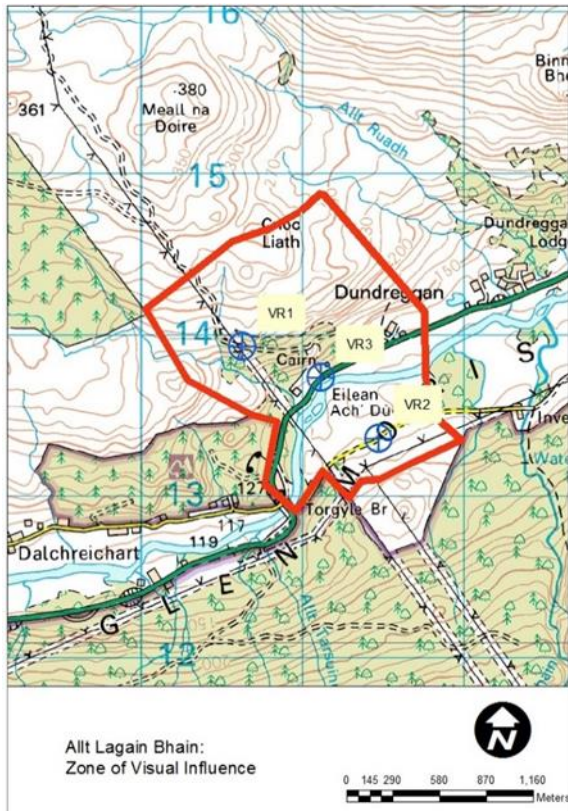


Figure 8 - Zone of Visual Influence

Again, there will be no change to views from the minor road to Inverwick (VR2) during the summer. During winter, the new bridge will be more visible but with planting, the impact is anticipated to be slight. During summer and winter there will be a slight impact on views from the A887 (VR3) once the planting has taken effect, i.e. once trees have become well established.

Impacts on Landscape Character

Impacts on landscape character are those changes resulting from the proposed scheme that affect the appearance of the local or wider area. The impacted area of landscape will be restricted to the area of the works which totals approximately 9895 m² (based on land purchase requirements). Impacts have been assessed to include:

- loss of areas of trees in the vicinity of the bridge;
- re-profiling of land;

- increasing the width of bridge and tie-ins from single track to double track; and
- demolition of historic masonry arch bridge.

The loss of trees will be particularly noticeable during the first 12 months after the works are completed. Within a few years, the compensation planting will become more established and the growth of trees will mitigate the effects on the local landscape.

Construction Impacts

There will also be construction-related impacts during the works through: presence of plant, vehicles and machinery; presence of a site compound; and presence of a temporary bridge and associated tie-ins. These construction impacts on the landscape are considered to be temporary and unavoidable.

The assessment concluded that the only significant landscape impact was the effect on the old masonry arch bridge. As previously explained, the old masonry arch bridge is almost in contact with the trunk road bridge and from a health and safety perspective it was considered not feasible to leave the bridge in place.

Road Drainage and the Water Environment

The assessment of road drainage and the water environment is included in Chapter 8 of the Environmental Statement. Water is not only essential for flora and fauna that live within it and that are dependent on it; it is also a valuable resource for activities such as fishing, drinking, hydropower and recreation. Consequently, protection of the water environment, including surface water and groundwater is a high priority. In addition, watercourses and lochs form key features in the landscape and support important habitats and species.

The Allt Lagain Bhain burn (see Figure 9) rises in hills to the north of the A887 and flows in a general southwards direction under the A887 to join the River Moriston, shown in Figure 10. The River Moriston and the Allt Lagain Bhain downstream of the A887 is designated as a Special Area of Conservation (SAC) for its population of Atlantic salmon and freshwater pearl mussel.



Figure 9 - Allt Lagain Bhain Burn



Figure 10 - River Moriston

Pollution control measures have been incorporated into the proposals for the scheme and SNH and SEPA have been consulted and are content with these proposals. The measures will provide pollution control once the road and bridge are in use.

The contractor will be required to implement mitigation measures during construction to reduce the risk of pollution during construction, for example:

- Reduce the risk of scour by providing temporary scour protection or controlling flows to avoid bank and bed erosion.
- Avoid unnecessary disturbance of the bed.
- Retain as much of the bank-side vegetation as practicable to reduce risk of scour and help to reduce ingress of suspended sediment from site runoff.

- Relevant SEPA Pollution Prevention Guidelines (PPGs) will be adhered to.

The assessment concluded that there will be significant temporary effects on a short length of Allt Lagain Bhain during construction but these will be reduced as far as practicable by pollution prevention and other measures.

Assessment of Cumulative Effects

Cumulative effects result from multiple actions on receptors and resources over time. They can result from the interaction of impacts on the different environmental elements of a single project, causing an impact on an environmental receptor. For example, there will be a landscape effect and a cultural heritage effect resulting from the demolition of the historic masonry bridge. Cumulative effects can also result from other projects causing impacts on environmental receptors in combination with those caused by the proposed scheme.

To determine the potential for cumulative effects, other projects in the area were considered. Works on upgrading the electricity power lines (see photograph opposite) adjacent to the Allt Lagain Bhain bridge are understood to have been largely completed. Although, some further works are still anticipated, they are not anticipated to result in significant cumulative impacts in combination with the proposed scheme.

In addition, works were undertaken by BEAR Scotland in 2016 to slightly widen a single track section of the A887 (within the trunk road boundary) between Torgoyle Bridge and Allt na h-Innse Beag. Minor culvert and ditch clearance maintenance works were also proposed in 2016, further west from Allt na h-Innse Beag. The only other foreseeable larger Transport Scotland project in the vicinity of the works is the replacement of the A887 Allt na h-Innse Beag Bridge located approximately 1 km to the west.

Works were being carried out at the fish hatchery on the other side of the river in 2016. It is anticipated that these works will be completed by the time construction commences on the proposed scheme.

Overall, there are predicted to be moderate cumulative effects during construction in relation to ecology and the water environment because of other projects in the vicinity. These will, however, be reduced as far as practicable through appropriate construction mitigation measures such as those described above in the Ecology and Nature Conservation and Road Drainage and Water Environment sections. In addition, consideration will be given to avoiding simultaneous construction of the proposed scheme and the A887 Allt na Innse Beag Bridge scheme.



**TRANSPORT
SCOTLAND**

CÒMHDHAIL ALBA

© Crown copyright 2023

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

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

This document is also available on the Transport Scotland website: www.transport.gov.scot

Published by Transport Scotland, March 2023.

Follow us:



transport.gov.scot



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