

M6 DBFO (Design-Build-Finance-Operate)

M74 Junctions 12 to 22

Autolink / Sir Robert McAlpine

BIG Biodiversity Challenge Award Category: *Biodiversity Legacy Award*

Project overview

This project is the maintenance of the 90km of the M74 Motorway from Junction 12 Millbank to River Sark Bridge. Works undertaken are ongoing maintenance activities of a motorway that runs through a rural location, including the management of unplanned events such as road accidents.

What were the biodiversity conditions on site, prior to the enhancement?

Sir Robert McAlpine took over the routine operation and maintenance contract on the M74, Junctions 22 to 12 in July 2013. The contract tasks Sir Robert McAlpine with maintaining the ecological condition of the site and providing ecological enhancements on baseline levels. Works activities are undertaken to ensure that the biodiversity around site is enhanced and the network is not having a detrimental effect on the sensitive area it runs through. The site was already established when Sir Robert McAlpine took over the maintenance activities but there are client and company requirements for works to improve biodiversity on site.

What were the reasons behind this project?

The operations focus on achievement of the environmental objectives defined in the M6 DBFO Agreement between Autolink and Transport Scotland. The projects undertaken are part of the contract to meet client expectations and mitigation plans as well as Sir Robert McAlpine's own biodiversity targets. Sir Robert McAlpine have a sustainability target to have a net gain of biodiversity and the M6 project has contributed to this target. There are also some mitigation works that are required to be completed to ensure that biodiversity within and adjacent to the M74 network are enhanced.



Log piles of mammal and insect habitat
(Sir Robert McAlpine)



Lagoon alongside M74
(Sir Robert McAlpine)

What were the biodiversity measures taken?

As part of the M6 DBFO project there are a number of activities that are undertaken which help maintain and enhance the biodiversity around site. The following works and activities have taken place and are planned for the next 8 years:

- Grass cutting: grass is only cut 1.2m from the verge during the breeding season to avoid disturbing mammals and birds. This has the benefit of allowing the native grassland species to thrive. Grass is left uncut in areas north of Greenhillstairs to create a natural grassland sward. The regimes increase wildflower populations including orchid and bluebells in line with ecologist recommendations.
- Hedgerows: 500m² of beech and hawthorn has been planted to enhance hedgerows on site.
- Tree maintenance: undertaken outwith the bird nesting season. Diseased larch trees have been cut to prevent the spread of *Phytophthora ramorum* ('Ramorum'). Log piles have been retained following tree cutting to provide hibernacula.
- Weeds: injurious and pernicious weeds are managed on the network including hand-picking ragwort and spraying of selective herbicides.
- Adders: sightings are recorded on the NARRS website. Grass cutting is avoided where adders are known to be present until their breeding season is over.
- Badgers: fencing around the site is maintained to reduce the risk of badgers entering the site and being harmed.
- Monitoring and testing: water quality monitoring of 6 lagoons is undertaken around site 6 times a year to ensure that the water environment is not being impacted by the network. Macroinvertebrate testing of 6 lagoons is undertaken once a year to ensure that the network is not having a detrimental effect on biodiversity.
- Training: regular training of operatives is undertaken on biodiversity issues to raise awareness.
- Pollution prevention: network incidents are attended to ensure that no pollution enters the Rivers Clyde and Annan that are adjacent to site.



Felled larch to prevent spread of Ramorum
(Sir Robert McAlpine)



Wildflower improvements – bluebells
(Sir Robert McAlpine)

Further information

Sir Robert McAlpine are continuing to explore opportunities to further enhance the quantity and quality of the landscaped areas within the M74 network and will liaise with the client and consultants to continue the good work that has been undertaken. Works are taken with full consideration of Transport Scotland biodiversity requirements.

The use of independent ecological assessments from accredited and respected organisations is necessary to get sound advice and records and ensure that the project continues on the positive path it has started. Important changes which have arisen from the periods of review are particularly associated with placing a greater emphasis on habitat. There have been increases in areas of natural grassland, hedgerows, macroinvertebrate scores and newly created habitat piles.

The methods used for managing the site including retaining timber arisings on some sites in the form of habitat piles, hibernacula and refugia. This work has additional benefits in significantly reducing labour, mobilisation and traffic management requirements and in turn site costs. The implementation of these work practices enabled the existing resource to increase the quantity of maintained species rich grassland and this is likely to further increase over the period of the contract.

Project Team

- Client: Transport Scotland / Autolink
- Main contractor: Sir Robert McAlpine
- Consultants: WSP, Peak Ecology

What was the motivation for carrying out the enhancement?

The project team were motivated to submit this entry following the success of Sir Robert McAlpine's A19 team who won the Monitoring, Maintenance and Management Award in 2018. The project team feel that there is a lot of value in what is being done on site and it is vital to show what can be achieved.

The hope is that by sharing the project outcomes, this will stimulate more biodiversity opportunities in future endeavours. The submission has provided the site team with the benefit of understanding that all their work is making an important contribution to the biodiversity in the area that they work and live.



Area of managed grassland
(Sir Robert McAlpine)



Area of uncut grassland to assist breeding adders
(Sir Robert McAlpine)