

Upgrade of the A74 in Scotland - temporary lagoons without disturbing the ground.

Case Record



Location A74 South West Scotland.

Main Contractor Carillion Infrastructure Management

Upgrade of the A74 in South West Scotland.

Environmental Initiatives

Pollution Prevention Temporary lagoons

During the upgrade of the A74 in South West Scotland there was no obvious means of preventing silted run-off from the site entering the adjacent river.

No room was available to create lagoons within the rock cutting and the wooded area between the road. In addition the river was a graded woodland containing protected snake species (adders). The only area available to construct lagoons was the roadside verge that was relatively flat but had British Telecommunications cables, including fibre optics running through it.

The only foreseeable solution was to construct some temporary lagoons. The series of lagoons made of straw bales were built on the roadside verge.

The lagoons were interconnected, with a chemical dosing plant set at the inlet to the first lagoon. The straw walls were 1 metre high and pinned into the ground for stability. The structure was then lined with pre-formed butyl rubber liners and weighted down along the top of the walls with sandbags,

The lagoons were relatively inexpensive to construct and the butyl rubber liners could be folded stored and reused.

The straw bales were in the main hay and deteriorated over time in the rain. Therefore for future projects straw was recommended.