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planet Environmental stewardship

# Swarth Moor "re-wetting scheme"

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Stuart Wykes, director of land & natural resources

Tarmac has been working with Natural England for number of years on the conservation management of the Site of Specific Scientific Interest (SSSI) at Swarth Moor in the Yorkshire Dales National Park.

Swarth Moor is an example of a valley head raised bog and lies between our operations at Arcow and Dry Rigg Quarries.

The condition of the area of bog land was raising concern in conservation terms. It was found that the surface of the bog had started drying out and there was an increase in species that are not characteristic of a bog habitat.

Ecosystems like peatlands are capable of absorbing and storing large amounts of carbon dioxide known as "carbon sinks," making them ideal for helping to tackle climate change. Nature based solutions such as peat bogs will be vital to supporting the UK's ambition to be net zero by 2050.

Tarmac has provided funding for a project led by Leeds University, to undertake core sampling of the peat, investigate the recent history of the SSSI and to provide guidance in the preparation of a conservation management plan for the SSSI area.

The study has led to the development of a "re-wetting scheme", to counter the drying out of the peat surface, encourage the establishment of mosses (Sphagnum spp.) and limit the establishment of the non-characteristic species. Sphagnum mosses are key to the development of peat on the SSSI which provide a carbon-sink; the re-wetting scheme will also inhibit the oxidation of the peat that was caused as a result of it drying out.

The re-wetting scheme will be completed in early 2021 and was jointly funded by Natural England, Tarmac and the Stories in Stone Project (Heritage lottery funded partnership). The re-wetting scheme involves forming small mounds across the surface of the SSSI to form "cells" to retain water, in which the mosses would establish & regenerate.

We have also funded some additional work at the site including; de-silting the established pools, creating additional pools and hibernaculae for great crested newts, and construction of a boardwalk and interpretation area for the area to be safely observed.

Our involvement with the management of Swarth Moor has also influenced the development of the restoration scheme at Dry Rigg. The emphasis or our restoration at the site will be on establishing fen habitat to in part compensate for the loss of the "lagg" or fen habitat that would have surrounded the domed raised bog before operations started.