Note on surfacing of a slippery path on the Cotswold Way…

Near Bath, the Cotswold Way climbs out of Weston and in wet weather has become so slippery that it has been almost impassable. In 2017 the Avon District wardens installed a 40m length of handrail (funded by the CWA) as an alternative to installing steps and this greatly improved the situation. So much so that walkers wore down the surface causing a washout and once more the section became difficult to use.

After much deliberation it was decided to try a somewhat experimental approach to stabilise the slope to make it walkable in wet weather and relatively maintenance free. This involved the use of EcoGrid on a geotextile membrane and filled with coarse gravel. A similar approach was seen on a similar descending path in Iceland and this approach was discussed with Ecogrid. The project was again funded by the CWA and implemented by Avon Wardens. This is what we did…

1. Preparation work

The affected area of about 40m long and 0.75m wide was dug out in preparation for installation of the membrane and grid. In addition several “french drains” were dug across the path to direct water away. This involved about 20 man-hours of warden labour, see the following photos..

2. Installing the membrane and EcoGrid

EcoGrid Limited supplied a non-woven fleece membrane and E40 EcoGrid tiles at a total cost of about £550 (incl delivery) and this was laid along the dug path. The french drains were lined with membrane and 20mm gravel / shingle before laying down the membrane and grid tiles. The path

was two tiles (70cm) wide and the tiles were easily snapped together to make a continuous path. Laying the membrane and grid took just 2-3 man-hours of warden work.

3. Laying the gravel

EcoGrid advised us to fill the grid with coarse 20mm gravel and to make sure that there were no fines present that might reduce drainage through the completed path. In other situations EcoGrid has been used to stabilise flat ground and a fill of MOT 1 stone has been used as this has fines and compacts down to a firm surface however it was felt that if this were to be used on this slope then the result might be a slippery surface a bit like an artificial ski slope.

Jewsons supplied 3 x 800kg jumbo bags of 20mm gravel/shingle which appeared to be South Cerney gravel. This was just enough to complete the path and took about 20 man-hours of warden work. This equates to about 60kg of gravel for every metre length of the 0.70cm wide path, or 90kg per sq.m. The total project cost was £750 which equates to a bit less than £20 per metre.

Conclusion

The completed project is shown on the attached photos and the team is confident that the new path will prove to be a significant improvement to this notoriously slippery section of path and will be resistant to the wash-outs which occurred previously.

A review of the project will be undertaken after the winter and if it the results are encouraging then this approach should be considered as an alternative to steps on similar slopes.

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