FACTSHEET

Plastic Dams

Plastic dams are impermeable gully blocks constructed from sheets of plastic piling that lock together. Plastic piling can hold considerable volumes of water, creating large, deep pools. However, these must be spaced correctly or there will be a risk of one or more dams failing. They only work effectively where the base of the piling is on peat, not the mineral soil beneath.

The piling is driven into the peat using a rubber mallet or other heavy implement (using a rubber block to cushion the blows and help prevent the plastic from splitting), ensuring at least half its height is within the peat enabling the material to withstand the volume and pressure exerted by the water which will build up behind. As shown in *Figure 1*, below, the plastic must be driven into the sides of the gully far enough (at least one panel's width) for structural strength and to prevent scouring around the sides. One or more panels in the centre of the dam should be driven slightly further into the peat to create a wide, low point allowing water to overflow in the middle of the dam, to prevent side-cutting. Stone, planks, heather bales etc, should be positioned beneath as splash plates where necessary to prevent undercutting.

Care should be taken to ensure that the dams are installed at an appropriate height (ie lower than the surrounding vegetation), to reduce their visual impact.

PURPOSE

- Good for creating pools
- Good for use in shallow peat pans, or near the heads of gullies

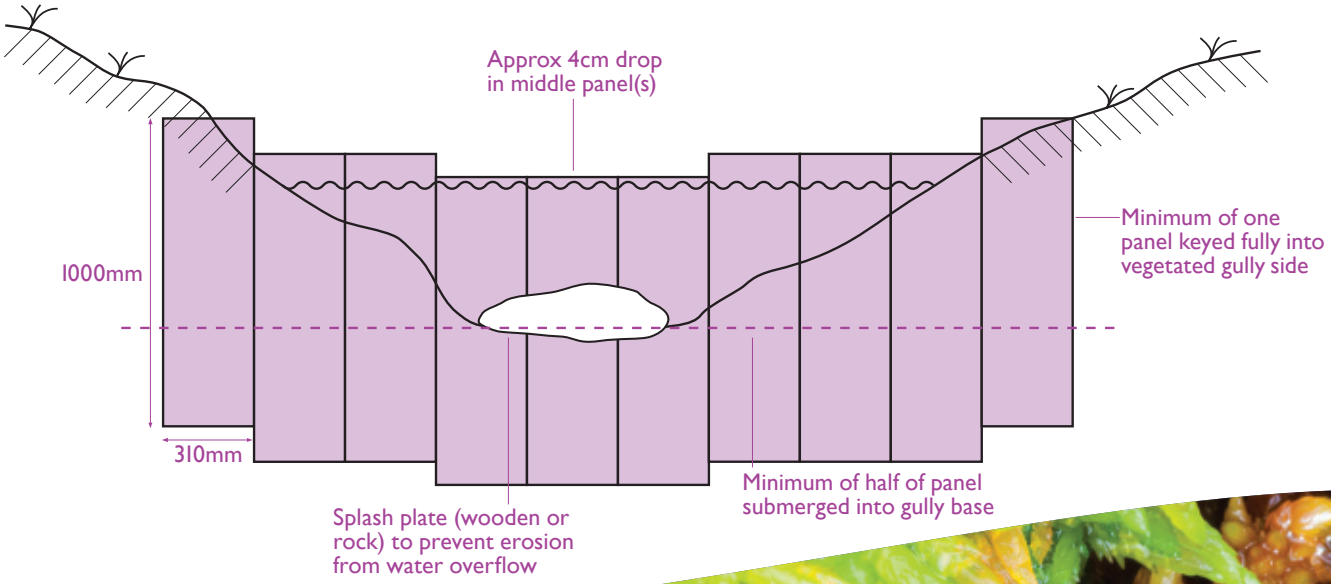
ADVANTAGES

- No vehicular access required – plastic piling can be airlifted to any location and installed using hand tools
- The most impermeable dam option

DISADVANTAGES

- Only suitable if there is sufficient peat depth
- Introduces an artificial material (plastic) onto the moor
- Can make it difficult to cross gullies on foot
- Plastic dams are susceptible to damage (by melting) from wildfires
- Plastic dams are more prone to damage than other dam types (though this is still uncommon)
- Plastic piling dams need to be installed with top-to-toe spacings, necessitating a large number of dams

Figure 1: Plastic pile dam construction



CASE STUDY: WEST NAB AND DEER HILL MOSS

In February 2016, plastic dams were installed on West Nab and Deer Hill Moss to block shallow pans and gullies near the heads of watercourses. *Figures 2 and 3* show some of the dams shortly after installation.

Figure 2: Plastic dams – several days after installation on Deer Hill Moss, February 2016

Figure 3: Plastic dams – several days after installation on Deer Hill Moss, February 2016

MoorLIFE2020

This factsheet is one of a series produced by the MoorLIFE 2020 project. A Moors for the Future Partnership project in the EU designated South Pennine Moors Special Area of Conservation. Delivered by the Peak District National Park Authority as the lead and accountable body (the Coordinating Beneficiary). On the ground delivery is being undertaken largely by the Moors for the Future staff team with works also undertaken by staff of the National Trust High Peak and Marsden Moor Estates, the RSPB Dove Stone team and Pennine Prospects (the Associated Beneficiaries).

www.moorsforthefuture.org.uk

Funded by the EU LIFE programme and co-financed by Severn Trent Water, Yorkshire Water and United Utilities. With advice and regulation from Natural England and the Environment Agency, and local advice from landowners.

Moors for the Future Partnership
The Moorland Centre, Fieldhead, Edale, Hope Valley S33 7ZA
t: 01629 816581 e: moors@peakdistrict.gov.uk