Methodology Statement for Laying of Polymer Mesh on Underend, Langleeford

Areas of blanket bog on the Underend near Langleeford are becoming eroded and peat is becoming exposed due to quad bike use, which are used for the daily management of the moor. It is proposed a length of polymer mesh is laid along the eroded area to prevent further damage and to allow vegetation to recover and regenerate. Map 1 shows the Underend area with the pink line denoting where the proposed mesh will be laid. Photographs 1 & 2 in appendix 1 show examples of the erosion and bare peat.

Alternatives to the mesh have been considered and dismissed such as laying a flag stone path or soil reversal. The laying of a flag stone path would not allow vegetation underneath it to regenerate, it would be aesthetically unpleasant as well as being expensive and labour intensive to lay. Soil reversal would be inappropriate over blanket bog and is more suited to loamy soils over rock.

Alternative access routes have also been considered but the surrounding area is also either blanket bog or wet heath, which were identified during the vegetation surveys carried out for the Higher Level Stewardship application. Map 3 was drawn up by Natural England with the hatching showing the area of blanket bog and the proposed section of matting marked red. Rather than creating a new access route, the preferred option will be to mesh the existing quad bike track. Further to this, the route is required to gain access to and from the lines of grouse butts shown on the attached maps.

Attached is the specification for the proposed mesh, with green being the colour of choice so it blends in with the surrounding vegetation better than the black alternative. Where the mesh has been used on other areas of the estate, it has blended in extremely well and is concealed by the vegetation growing through it. Photographs 1 & 2 in Appendix 2 are an example of the mesh in other areas of the estate. Heather, Wild Strawberry and Cotton Grass have all established and are growing through the mesh.

Each section of the polymer mesh is 2m wide, 30m long and 4mm thick. A total of 34 rolls will be required for the 1,000m section, which will be transported to site using a Haglund. This rubber tracked all-terrain vehicle has a very low ground pressure and causes little impact, if any. The mesh will be rolled out and pinned into position using U pins, which are 50cm in length. No ground works such as ditching or the removing of soil will be needed. However, to make sure the mesh is laid flush to the ground, mowing or strimming the current vegetation will probably be required. This will decrease the risk of the mesh moving whilst in use and should speed up the time it takes for vegetation such as Sphagnum, Heather and Cotton Grass to re-establish. If required, seed containing bents, fescues and heather could be broadcast on the bare peat prior to the laying of the mesh to speed up the regeneration process.

The proposed work, if permission is granted, will commence in the summer of 2020 when ground conditions are likely to be dry and when ground nesting birds have fledged. The rolling out, laying and pining of the mesh is likely to take ten days to complete. Once the mesh is in place, it will be used daily by a quad bike and 4 or 5 times a year by 2 Argo Cats.

If the project goes ahead, it is felt this will reduce the risk of sediment entering watercourses as well as helping restore peat bogs.