

# Shared Island Initiative PEATLAND PROGRAMME



Shared Island  
Initiative

## CASE STUDY

### Wicklow Mountains National Park (WMNP) Restoration Project

The National Parks Wildlife Services (NPWS) and Intel Corporation funded an ecological restoration project on c. 100Ha of blanket bog in the Wicklow Mountains NP to increase water storage levels by slowing down surface water run-off in areas that supply much of the Greater Dublin region.

The project also aims to protect biodiversity and improve carbon storage. An area of deep upland blanket bog known as the Liffey Head blanket bog is one of best remaining areas of mountain blanket bog in eastern Ireland.

Works were carried out over two phases between 2022 and 2024. The project focused on a section of degraded blanket bog, in an area that straddles the Military Road between Kippure Mountain and the Sally Gap

Degradation of peatland habitats in the Wicklow Mountains National Park is principally caused by the effects of drainage, peat extraction, uncontrolled fires, overgrazing and recreational use.

## METHODS & APPROACH

Bord na Móna (BnM), in conjunction with Tetra Tech, provided professional services to NPWS to support the design and delivery of the restoration works. These services included hydrological design and monitoring, ecological surveys, topographical surveying and setting out of works, as well as contract administration and on-site supervision of construction activities.

Restoration measures employed included peat dams, low peat bunds, coir logs, timber dams and a limited number of plastic dams.

Phase 1 was implemented by BnM Operations with G Russell Plant Hire Limited implementing Phase 2 Works. Both Phases included the need for careful consideration of the risk of peat stability. Significant exclusion zones were required due to the high risk of peat stability issues arising. The high risk was primarily driven by a combination of very weak peat (low shear strength) and steeply sloping sub-peat topography, despite relatively flat surface topography.



Aerial view of drain blocking



Timber dam holding back water after heavy rain



Low peat bund installed in a wide gully

## RESULTS

Large areas of drained blanket bog have been re-wet by blocking drains to help raise water levels in the peat soils, restoring its natural hydrology.

This project aims to reduce erosion of important blanket bog and heath habitats and reduce silt run-off by slowing down the water run-off and reducing peak flows with early evidence of a dramatic shift in hydrological responses to rainfall.

An increase in water table levels is observed from early piezometer readings taken, where monitoring is on-going with further studies proposed.

## KEY LESSONS

Special consideration should be given to areas of bare peat where vegetation is sparse to avoid disturbance of peat, especially during periods of heavy rain.

Tracking of machines should be kept to a minimum and ideally a single pass when constructing dams.

Refuelling routes should avoid areas where excess disturbance is likely.

The extent of the exclusion areas resulted in a significant increase in cost for restoration measures, due to the need to implement measures by hand rather than by machine.



Ref.- National Parks and Wildlife Service and Intel launch bog restoration project to increase water storage by millions of litres

