**Little Hawes Water Project, Gait Barrows NNR, Silverdale**

1. **Project Aim**

To fell and extract timber from an area of beech plantation/secondary woodland adjacent to Hawes Water Lake situated within Gait Barrows NNR. The removal of the trees and scrub will allow the restoration of two rare SAC priority habitats (marl grassland and alkaline fen) and reconnect the grasslands/fen on the lake edge to the adjacent grazed pastures helping to improve the habitat condition for rare plants such as bird’s-eye primrose and fragrant orchid and prevent the encroachment of scrub. The felled area of trees and adjacent thinned beech plantation will subsequently be cattle grazed to create a mosaic of open habitat, trees and scrub. Tree removal will restore vistas of the lake from the eastern and northern approaches to improve the visitor experience. A new boardwalk constructed along part of the existing Public Right of Way will improve the disabled access next to the lake and link into an existing footpath leading to Moss Lane.

1. **Background**

Gait Barrows NNR is owned and managed by Natural England and located 2km northeast of Silverdale in north Lancashire (see location map). The site is designated as a Site of Special Scientific Interest (SSSI) and Special Area of Conservation (SAC) for its rare limestone habitats, wetlands and rich flora and fauna. The area of plantation woodland to be part-felled is on the eastern edge of the lake and is thought to be around 90-100 years old. There are stands of self-set sycamore within the plantation and some mature scots pine towards the periphery. There is little ground flora due to the shading nature of beech trees and a sparse scrub layer heavily dominated by holly. Beech isn’t generally considered native to the north of England and part of the plantation is located on substrate (marl and peat) where it is likely that priority habitat can be restored after felling. Natural England has a Forestry Commission Felling Licence in place for the proposed work.

The felling is part of a larger project to re-instate the natural hydrology of the area by adding a sluice to the ditch that flows into Hawes Water from an adjacent smaller water body (Little Hawes Water). The water level behind the sluice will be controlled to increase the extent of open water and surrounding alkaline fen within Little Hawes Water basin. Natural England has secured funding from Defra (from the Water Environment Improvement Fund) to implement the project which will need to completed and claimed in the 17/18 financial year.

The NNR is crossed by several Public Rights of Way. We have been given permission by Lancashire County Council to temporarily close the footpaths while the felling and extraction is being undertaken. The duration of the footpath closures will be kept to a minimum and will only be closed when there is a risk to public safety through tree felling and use of large machinery for timber extraction. It is likely that the public carpark at Gait Barrows will be permanently closed through most of February and March as this will be used for machinery and timber storage.

1. **Objectives**

The overall objectives of the project are to:

* Fell and extract approx. 1.3ha of beech plantation/secondary woodland including some areas of younger willow scrub adjacent to Little Hawes Water, to restore open priority habitat adjacent to the water bodies (see green area project map). Some specific trees and shrubs will retained i.e. individual mature ash, scots pine, alder buckthorn and juniper. Some standing deadwood will also be retained (if not a risk to public safety). These trees/shrubs/deadwood will be identified on a site visit with the contractor and clearly marked by Natural England before felling begins.
* Thin approx. 0.5ha beech plantation (yellow area on the map) by removing up to 50% of the beech/sycamore to allow more light into the understorey to encourage the growth of the scrub layer and ground flora.
* Re-introduce cattle grazing to the lake side priority habitats to improve their condition and by preventing scrub encroachment, removing thatch from the grasslands and encouraging the establishment of species such as bird’s-eye primrose, butterwort and grass-of-parnassus.
* Restore vistas of Hawes Water from the pastures to the east and north.
* Improve the public/disabled access through the area by removing two existing boardwalks between the water bodies and replacing with a new timber boardwalk and connecting limestone footpath to Moss Lane.
* Install a sluice in the man-made ditch connecting Little Hawes Water to Hawes Water to restore and regulate water levels in the Little Hawes Water basin to increase the extent of open water and surrounding alkaline fen.