

## Transforming the Burbage valley – the story of “the biggest project in the biggest NIA”

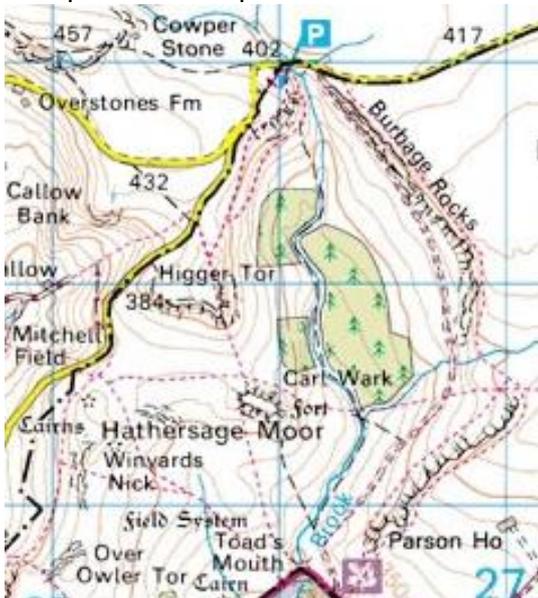
2012 -2015 Ted Talbot, Countryside Manager, National Trust & formerly Woodlands Manager for Sheffield City Council.

The Burbage Valley lies on the eastern side of the Peak District. It is close to the Fox House Inn on the A6187 road from Chapel en-le-Frith to Sheffield, approximately three miles east of Hathersage and eight miles west of the center of Sheffield. The area is owned by Sheffield City Council but now leased to and managed by the National Trust. In 2012 it was included in the Sheffield Moors Partnership area as part of a landscape wide approach to the management of the moorland areas to the west of Sheffield, involving multiple landowners (Sheffield City Council, RSPB & NT, Peak District National Park & Sheffield Wildlife Trust). It is subject to a number of Statutory Designations, lying within the Peak District National Park and is a Site of Special Scientific Interest (SSSI). The two high points of Higger Tor, and Carl Wark -an iron age hillfort and Scheduled Ancient Monument dominate the valley and are good view points.



The Burbage valley (left) was included within the Dark Peak Nature Improvement Area, which was successful in receiving funding in 2012 to deliver projects in the spirit of the Lawton Report – “bigger, better, more and joined up” landscapes scale conservation to help check the UK’s loss of wildlife whilst ensuring good public access and visitor engagement.

Within the center of the Burbage Valley, lay an established conifer plantation, which formed a large afforested block either side of the Burbage brook. The 34 ha plantation was planted between 1968 and 1971 after plans for the valley to become a reservoir were rejected by the Sheffield Corporation for geological reasons. In the late 1960s, when this Burbage Plantation was first conceived there was less emphasis on the conservation of landscape and nature than there is today and this plantation was laid out to represent a map of Great Britain from the air.



The plantation (right) was still known by many as the “Great Britain plantation”, although the “West Country” spur was never planted because of unexploded WWII ordnance being found in the area. This was left over from the previous use of the valley by the MOD as a training ground for the Dads Army and Canadian Infantry before D-Day. Bullet marks from this period can also be seen on many tanks sized boulders that are now enjoyed by climbers.

The plantation principally contained Lodgepole pine with Scots pine and Japanese larch, none of which had grown well on the poor acid soils. When the woodland was planted, no consideration was given to access and managing the woodland. Therefore, management had been poor, with little or no thinning having been done. This resulted in the existing trees being too crowded to grow well, and a propensity for trees had started to be blown over within the woods. For this reason, despite the trees being mature, the value in the timber was so poor and the cost of extraction and site restoration so high that there was no viable economic solution for taking this site forward without some form of grant.



The Burbage Plantation from the south looking north.

Forest access work just starting :  
20 August 2014.

Both the valley and the woodland are very well used recreationally, with the Burbage rocks being one of the birth places of modern British climbing and the good footpath links, especially the old quarry track known as the Green Drive, being used by locals, visitors and school groups on geography trips all year round. In addition, the dense conifer woodland became an easy spot to hide in and on warm summer nights developed a reputation for fly-camping and parties, causing an increased fire risk to the surrounding moorland when party bonfires got too big, causing the Fire Brigade to issue several warnings to the council. To resolve these issues four clear actions needed to be undertaken:

1. The existing conifer plantation needed to be felled and any viable timber removed off site, with the brash then suitably treated, to minimize the fire risk to the surrounding heathland.
2. To facilitate this work, a lower section of the Green Drive had to be made suitable for forestry machinery and a route constructed to access the woodland and remove timber to the main road south of the wood.
3. Once the forestry work was done site restoration would need to be undertaken to habitat types that are more consistent and sympathetic to the surrounding landscape designations, such as native woodland and heathland.
4. Finally, the woodland needed to be re-shaped to be more naturalistic and to fit in better with the landscape, with new native trees being planted within a fenced area, maximizing natural regeneration. Some retained areas of wind-firm conifer need to be kept and managed to screen the clear-fell area and act as sediment traps in the medium term with a view to their removal once broadleaved woodland was established (in 20-30 years).

In 2012 the opportunity arose to make this work happen when The Burbage Plantation work was given the go ahead as part of the successful Dark Peak Nature Improvement Area bid under the new Nature Improvement Areas (NIAs) Programme. Most of the work was put out to tender and specialist contractors were engaged to deliver the track work, felling and extraction, then finally, fencing and woodland planting. However, there were many opportunities for volunteer involvement as well, from site surveying and public awareness raising through to leading walks and gathering native tree seeds to grow on from nearby clough woodlands.

The Dark Peak NIA Project's aims include the improvement and creation of areas of high quality wildlife habitat. This woodland project contributed to these aims by replacing impoverished, alien conifer plantation with open moorland habitats and Sessile Oak woodland. With a net gain across the NIA project area of 14.40 ha of woodland, 8.58 ha of upland heath, through the removal of this significant conifer plantation. This work was to be the biggest project within the biggest of the 12 new national NIAs.

The prospect of clear felling over 20 hectares of woodland within a National Park and ensuring public support in such a well-loved place was at first daunting to Sheffield City Council's Woodlands team and the other partners. Despite undertaking regular forestry work within the city's large woodland estate this was 5 times the usual annual area of woodland felled and, at an expected 8000 tonnes, double the volume of timber normally processed and removed. However, through careful project design, good consultation with stakeholders, expert help from both the Forestry Commission and Natural England and the application of environmental controls through the writing of an Environmental Impact Assessment all the potential risks of the proposed work were able to be prevented or minimized.

Sheffield City Ecology Unit led on a comprehensive ecological, geological and hydrological survey of the site which resulted in excellent base line data for the project before any work was done and also highlighted significant Water Vole numbers along the Burbage brook. The find forced a rethink on the best way to extract timber from the "Wales" & "Scotland" compartments without damaging this habitat and the initial plan to put in temporary piped crossing points for timber harvesting machines was shelved to be replaced by hand felling on the steep slopes supported by whole tree removal using a helicopter to deposit the trees onto the processing area the other side of the brook.



Whole tree harvesting (left), with extraction via helicopter to a processing site 500m away on the other side of Burbage brook minimized disturbance to the brook habitat and left a brush free area on which to restore heathland species.

The major work started on site in August 2015 and went according to plan with the felling and extraction completed by Christmas thanks to good weather conditions, leaving the site restoration, fencing and planting to be done in early 2016, finishing within time and budget by April.

Thankfully the public response to the work was positive, which demonstrated the effectiveness of the NIA partnership and its broad stakeholder base, in terms of endorsing the work publicly through a variety of audiences such as the BMC and Ramblers association.

With the major capital work over and the site quiet again there is a sense of relief and pride that this complex project has gone so well under the watchful eye of the visiting public. For those involved it has been a fantastic and rare chance to be engaged in landscape scale conservation that will be remembered for many years to come.

The NIA brought people together under a mighty common cause and gave focus to some excellent conservation work delivered through partnership.

Watching the wildlife return to the site and nature respond to the changes delivered will be fascinating and by benchmarking against the base line ecological surveys should, in time, demonstrate that this sort of carefully planned intervention really does work.