

MOORS FOR THE FUTURE PARTNERSHIP



# A Year in Review 2018–2019

*Protecting the uplands for the benefit of us all*







## Chair's message

It was a milestone year in many ways – with many projects in full swing and others coming to a close. It was our biggest year of capital works delivery, matched by impressive landscape-scale monitoring, on foot and by taking to the skies. We protected almost a square kilometre of bare peat from being lost, starting it on the road to recovery. We blocked 30 km of erosion gullies, and restored 8 square kilometres of habitat. Our monitoring efforts included recording plant species by hand across 1,700 square metres. We spoke directly to 6,000 people through presentations, talks and visits with our Bogtastic van, all backed up by a solid online presence and appearance in local and national media.

During the summer, we assisted the Heather Trust with their AGM in the Peak District, where academics and land managers discussed rewetting, rewilding and vegetation management. We brought together regional Directors from the Environment Agency and Peak District National Park Authority to look at recovering moorland at Wessenden and wildfire damage at Stalybridge.



As usual, we shared our knowledge and best practice wherever we could, at an EU LIFE conference in Estonia, and with the IUCN Peatland Programme. We hosted visits from guest projects as far as Lithuania and Latvia and set up two webinars to share knowledge about wildfire. We also took Rochdale MP Tony Lloyd on a site visit to discuss access and conservation work.

We were grateful to Dr Kathy Oldham OBE, chief resilience officer for Greater Manchester Combined Authority, who used her spot at the UN Habitat conference on World Cities Day to give a speech about the importance of protecting the peatlands that nestle between the northern powerhouse cities of Manchester, Sheffield and Huddersfield.





We contributed to policy, showing the Glover team for the Landscapes Review an example of partnership working in action, when the final bags of heather cuttings were helicoptered on to RSPB land on Kinder Scout. We also gave our written input into the Review and to a consultation on the indicators for Defra's 25 Year Environment Plan.



In a year dominated by the most devastating wildfires for many years, we played a supporting role, assisting

the National Park Authority and Pennine Prospects to set up operation Firewatch. During the times of highest risk, the entire South Pennines Special Area for Conservation was covered by a network of volunteers stationed at vantage points on lookout for new fires. Sadly, in late February another hot spell caused wildfires at Marsden Moor and Ilkey Moor.

We continued to look to the future, offering assistance to Severn Trent, United Utilities and Yorkshire Water Services in preparing plans for their next Asset Management Plans. Funding applications included an expression of interest to the EU LIFE programme. And we were awarded £2 million from the Water Environment Grant fund for our building blocks project.

Our main event of the year took place in September when we brought blanket bogs to the House of Commons to promote our plans for the upper catchments of the Peak District and South Pennines. Over a hundred people attended a reception sponsored by Angela Smith (MP for Penistone and Stocksbridge) and hosted by Severn Trent including members of both Houses of Parliament. It was probably the first ever event in the Palace of Westminster to feature an appearance of sphagnum moss and the award-winning folk singer and Blanket Bog Patron, Bella Hardy.

We continue to look to the future with the start of our Moor Business project. A grant from the National Lottery Heritage Fund enables us to review our business processes. We aim to emerge from this process with increased resilience in our ways of working, and a blueprint for success into the future.



## The year in review

Work began on our Moor Carbon project, with £3 million grant funding from Defra's Peatland Restoration Fund to focus on avoiding further loss of carbon from bare peat. The first areas to benefit from this work were near Stalybridge, and Combs Moss in the South West Peak where we teamed up with the South West Peak Landscape Partnership to offer an opportunity to apprentices who spread 2,300 bags of chopped heather (brash) to stabilise bare peat.

We started planning for our Building Blocks project. The £2 million Water Environment Grant funding from Natural England will allow us to identify the future locations for our work. The funding will allow us to identify the locations of a further 100,000 gully blocks (mini-dams) in erosion gullies, and to construct 8,000 new dams across the SAC.

Delivery for our EU LIFE programme-funded MoorLIFE 2020 project continued.



We took delivery of a *Green Climber*, a remote-controlled vehicle used to cut dense stands of vegetation. We put our new piece of kit through its paces in an event held with Natural England for Peak District gamekeepers.

Two journal papers based on our work in collaboration with University of Manchester were published, on the trajectories of recovery in *Science of the Total Environment*, and natural flood management in the *Journal of Hydrology X*. This body of knowledge is being taken forward with University of Manchester, in the NERC-funded Protect project.



A huge volunteer effort led to the planting of 15,000 sphagnum plants on a monitoring site on Kinder during the harsh winter and spring of 2018. The site was a two-hour hike from the roadside.





Surveying for the Peak District breeding bird survey took place across 500 square kilometres of moorland and 100 landholdings.

Our Bogtastic van was on the road 56 times and our team spoke to 2,600 people about the benefits of healthy peat moorlands.



We launched a junior ranger group in Edale for 11- to 18-year-olds to learn and experience moorland habitats and their vital benefits.

We teamed up with the Peak District National Park Authority and British Mountaineering Council (BMC) for their Mend our Mountains fundraiser. As well as supporting fundraising efforts and applying for grant funding, we took part in the Dambusters fell race to raise funds for repair works on Cut Gate in the Langsett and Derwent valleys and the Great Ridge in the vale of Edale.



**Read more highlights of the year in the following pages.**





# A military operation in the South West Peak

Working across the Peak District and South Pennine moors and with a variety of different landowner interests means that each and every site is different, and always requires a flexible approach. There is no 'one size fits all' approach for moorland conservation. This agility was put to the test last year when working on ex-Ministry of Defence (MOD) land on Morrige Moor in the South West Peak.

Armed with funding from Natural England's Higher Level Stewardship scheme, the agreement-holder was advised to raise the water tables and slow the flow of rainfall off the moor by blocking erosion gullies.

Approached to assess the site in 2016, we agreed a plan to carry out the works with the landowner, the MOD and the Peak District National Park Authority ecologists.

As a potentially active MOD area that continued to be used for target practice, the site presented obvious complications: it was not possible to use toothed diggers due to the risk of detonating any dormant shells. Due to demand on the MOD bomb squad, work was paused for two years awaiting a sweep of the area that recovered 5,000 mortar shells and an uncountable number of bullets. After staff and contractors were briefed on how to respond in the event of encountering any further ordnance, work could begin.

The site was too small to use a helicopter so an all-terrain vehicle was commandeered to transport materials used to build the dam. To avoid any unintentional detonation, an excavator without digging teeth carried out construction manoeuvres.

Despite these difficult conditions, contractors managed to build 100 dams in just seven days. In total there are now 75 peat dams, designed to trap water. These filled up immediately and help keep Morrige Moor wetter. Twenty-five stone dams are successfully slowing the flow of water after heavy rain.











## Ready for conservation at Readycon Dean

Another example of our Conservation and Land Management team's flexible approach to working on different sites took place on Readycon Dean and Castleshaw Moor, identified by archaeologists as 'a significant prehistoric archaeological landscape' with 'the densest concentration of Mesolithic flint sites in the country'.

Here, a key conservation action was to re-profile drip-edges (near-vertical slopes of bare peat often found along the edges of erosion gullies or grips) into gentler, smoother slopes. This re-profiling work prevents erosion caused by water dripping from the edges – and carrying peat away with it. Reducing the angle of the drip-edges helps plants to grow and stabilise the surface of the peat.

The low depth of the gully edges meant that diggers would not be suitable. Instead, we asked contractors to re-profile the drip-edges in peat pans by hand, leaving them ready to be covered with a stabilising layer of chopped heather cuttings (brash) followed by lime (to reduce acidity), grass seed and fertiliser to kick-start the seed growth.

This work is new to us – there were challenges to the techniques and lessons to be learned. Dry peat is crumbly and difficult to work with so this work is better done when it's wet. And there are limitations on height when working by hand – the amount of peat

that needed to be moved meant that the height limit for re-profiling is half a metre.

Our work resulted in a smoother-surfaced moor, which is less likely to erode. This is good for protecting both the carbon and the archaeological heritage that remains buried beneath it.











# Plugging the gaps in our sphagnum knowledge

Moors for the Future Partnership plants sphagnum moss, the essential building block of healthy blanket bog, in order to re-wet the moors.

Due to the history of industrial pollution and wildfires, there is a shortage of sphagnum growing in our working areas. So in addition to translocating hummocks of sphagnum from one part of a moor to another (clumps), the moss is also grown in a lab. It takes the form of beads containing five to seven fragments of sphagnum, gel containing fragments (slime) and plugs (similar to garden plug plants).



In early 2019 we published the results of a five-year trial into the effectiveness of different propagule types of sphagnum. The trial took place on the north edge of Kinder Scout on National Trust land, where three areas, comprising five mini-catchments (the four sphagnum propagules plus a control) were planted, monitored and assessed.

At the end of the trial, funded by the EU LIFE programme under the MoorLIFE 2020 project, it was established that plugs were the most effective way of planting sphagnum (with 40% coverage), followed by clumps (36%), gel (10%) and beads (1%). However, plugs were also the most expensive form of propagule. But, as the percentage cover of sphagnum continues to increase over time, the cost of clumps per 1% cover will decrease so may be better value for money in the longer term.

Alongside this trial, we held a dense plug plant trial, comparing the effectiveness of planting sphagnum on undulating ground to planting it on hag tops. Topography was found to have a dramatic effect on the growth of sphagnum plugs and faster growth was found to be most likely in areas with a higher water table and better protection from drying out.

You can find the full findings of this trial at [www.moorsforthefuture.org.uk/\\_\\_data/assets/pdf\\_file/0003/1533621/MFFP-Sphagnum-Trials-Summary-2018.pdf](http://www.moorsforthefuture.org.uk/__data/assets/pdf_file/0003/1533621/MFFP-Sphagnum-Trials-Summary-2018.pdf)









## Digi-Bog – a model approach

We know that the restoration of upland peat bogs has many environmental benefits. But there is also a host of ways in which humans benefit from the natural environment – known as ecosystem services – from improvement of water quality, to enjoyment of our wide open spaces.

We wanted to find out how to place a value on these services, and how to make decisions about spending money, picking sites and choosing working methods.

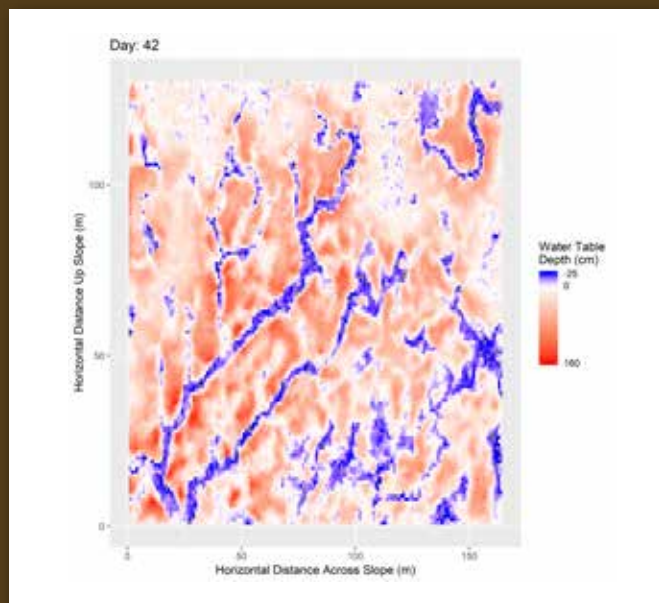
With this in mind, we teamed up with the University of Leeds, University of Manchester and Durham University, as well as Yorkshire Peat Partnership, to improve our understanding of these complex issues.

The Integrated Catchments Solution Programme (iCASP) aims to optimise the design of projects for best ecosystem service provision and cost-effectiveness. The scheme is endeavouring to improve communication between the academic community, land managers and conservation professionals so that scientific evidence can be used effectively on the ground.

Our work with iCASP has two strands. The first is 'Digi-bog', a digital model to help conservation professionals predict how different scenarios of gully blocking (using mini-dams) will affect the behaviour of water on the moors. For example, the model could inform a decision about whether to

use stone or peat dams when rewetting a certain area of moorland. Digi-bog will also be useful in communicating expected benefits to stakeholders in advance of doing work. We have played an active role in shaping and testing how the model works, and will benefit from using it to make decisions about conservation works.

The project has also developed a 'menu of methods' for valuing the benefits of our peatland restoration work. We can pick a method from the menu, and work out the economic value of the benefits provided by peatlands that our work has impacted upon. There is also a selection of case studies of projects that have already taken place, which can also inform our working methods.











# Farewell to the Community Science Project – long live the volunteers!

December 2018 marked the end of our National Lottery-funded Community Science Project. As the project drew to a close, we took time to reflect on its achievements and how to ensure its legacy into the future. It was a popular project, with 1,000 volunteers donating 16,500 hours of their free time. But what made them give their time so generously?

The project set out to increase understanding of blanket bog at the heart of England, by contributing to scientific data about the impact of climate change on moorlands. From submitting a wildlife sighting via postcard or using our app, to patrolling a regular transect for one of three targeted surveys, to the long-term commitment of adopting one of eight monitoring stations, there was something for everyone to get involved with.

Training sessions took place to give volunteers the skills to carry out surveys and confidence to identify sphagnum moss, bumblebee species and reptiles, and are now run on a one-to-one basis with volunteer trainers.

Data was analysed and sent out in our regular Citizen Scientist newsletter, giving feedback to everyone who got involved.

We teamed up with Crisis Skylight South Yorkshire to run creative conservation trips, for people who had been or were at risk of becoming homeless. This was an opportunity to enjoy the health and well-being benefits

of being outside and connecting with nature. For some, it was their first trip outside the city and opened up the possibility of exploring a new environment.

We held an annual photo competition, garnering entries from 20 countries. The winning photos were exhibited across the Peak District and surrounding towns and cities.

Accolades included the 2017 Campaign for National Parks 'Park Protector Award', a commendation in the 'Natura 2000 Communications Award' and finalist in the National Biodiversity Network 'Lynne Farrell Group Award for Biological Recording'.

Since the project funding ended, volunteers continue to contribute their sightings, surveys and regular monitoring and help process the data, which is shared with partners and neighbouring projects and on a national database held by the Biological Record Centre.

And with the increasing concern in climate change, our citizen science toolkit gives everyone who visits the Peak District and South Pennine Moors the chance to get in tune with nature, learn more about the blanket bog world around them and contribute to long term data on climate change.

Listen to the project final podcast here:  
[https://youtu.be/PXtOhged6\\_8](https://youtu.be/PXtOhged6_8)









# On a mission to prevent moorland wildfires

Moorland wildfires have had a devastating effect on the Peak District and South Pennine Moors in the past year. On the moors of the Peak District and South Pennines, four square kilometres have been seriously damaged by the fires. Another 10 square kilometres bordering the protected area have also been affected.

Some of these moors were ones where we had been working, and restoration work on some of the land devastated by the fires is already underway, to repair and rewet these naturally boggy places. Sphagnum moss is an essential ingredient, absorbing up to 20 times its weight in water and helping to keep the peat wet even during dry spells.

Active blanket bog in good condition absorbs and stores carbon – so restoration of blanket bogs is contributing to our fight against climate change and the extreme weather conditions we have seen in the last two years.

Alongside the practical conservation work, we have been touring with the Bogtastic van, focusing on the areas at risk of wildfire as well as those affected by last year's fires. The outbreak of wildfires in last year's hot dry summer was a traumatic period for those living at the foot of Stalybridge moor, especially the children at local schools, so we were keen to help them see the moors in a positive light again.

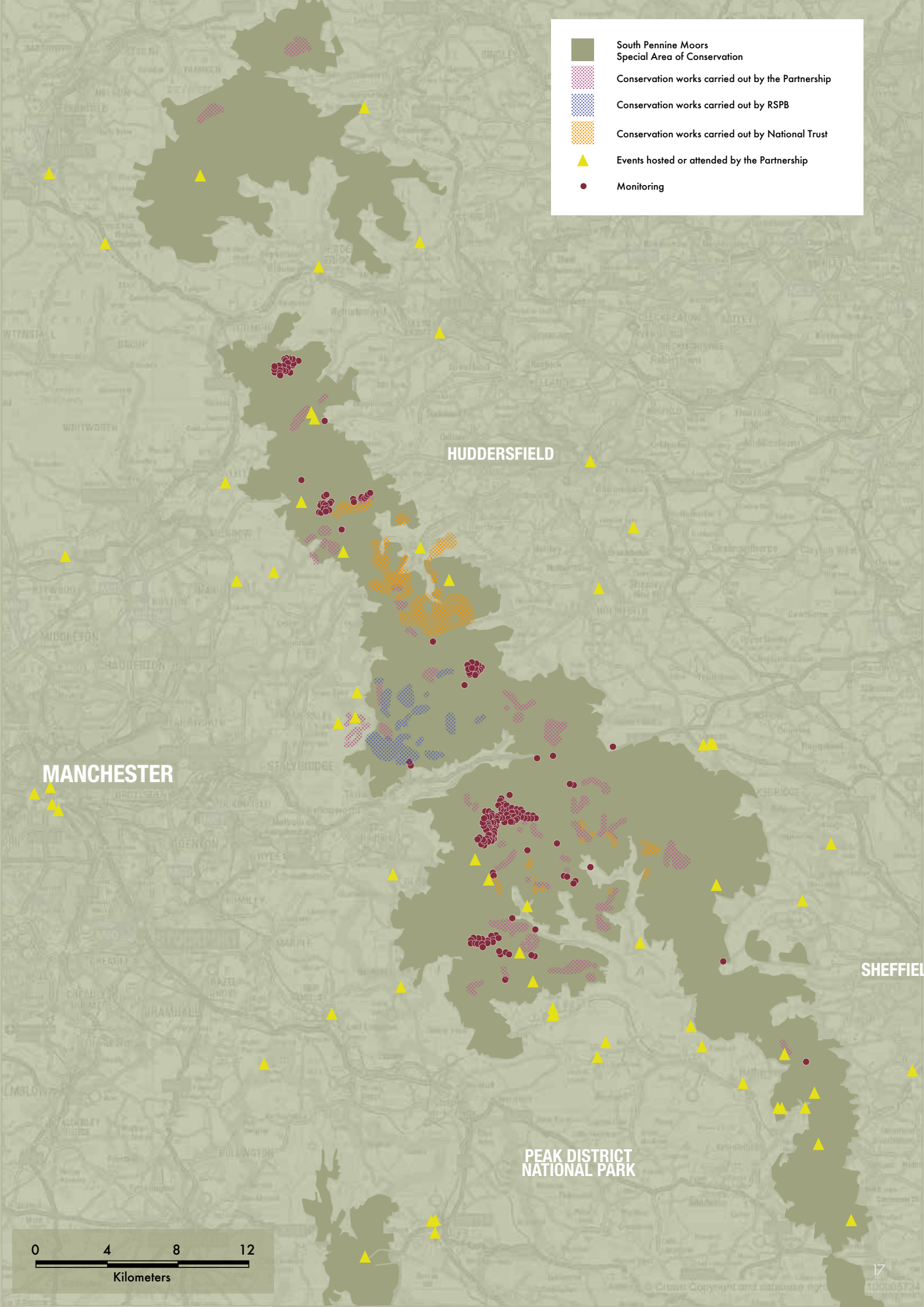


Our 'Be Fire Aware' message is a positive one – reminding the public of what can so easily be lost through carelessness. The Bogtastic van, with its atmospheric film, interactive apps and fun activities helps to reinforce this message and open up conversations on fire prevention.

We have also worked alongside our partners at Pennine Prospects who produced a 'Be Fire Aware' leaflet, and we have distributed portable ashtrays to remind the public not to use naked flames on the moors.

Looking forward, we are developing a 'fire mapping tool', to enable fire services and land managers to contribute to a database of wildfires, initially across the Peak District and South Pennines. This will enable those involved in wildfire prevention and management to develop a clearer understanding of where these events take place and the common factors behind them.





- South Pennine Moors Special Area of Conservation
- Conservation works carried out by the Partnership
- Conservation works carried out by RSPB
- Conservation works carried out by National Trust
- Events hosted or attended by the Partnership
- Monitoring

HUDDERSFIELD

MANCHESTER

SHEFFIELD

PEAK DISTRICT NATIONAL PARK



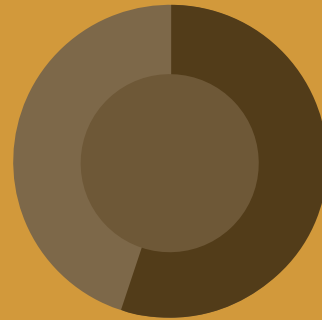


# The year in numbers

**Income** £2,035,363  
**Expenditure** £4,122,898

Our funding spans multiple years which means the income in a given year may be earmarked for successive financial years

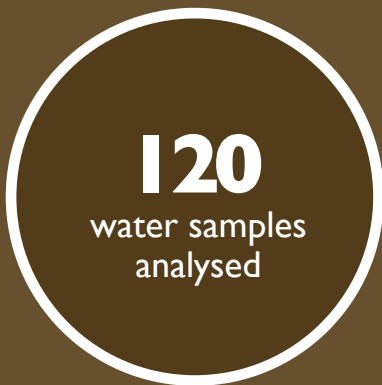
MATCH FUNDING  
£929,403  
45.7%



GRANTS  
£2,078,393  
54.3%

SOURCES OF INCOME

# Our work in numbers





# Partners and funders

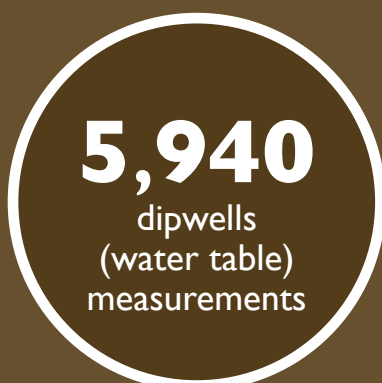
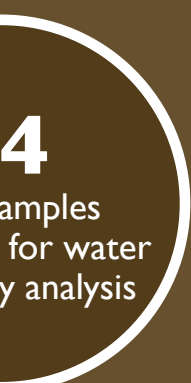
## Core partners

Environment Agency  
 National Trust  
 Peak District National Park Authority  
 Pennine Prospects  
 RSPB  
 Severn Trent  
 United Utilities  
 Yorkshire Water Services

## Project funders

Derbyshire County Council  
 Environment Agency  
 EU LIFE Programme  
 National Lottery Heritage Fund  
 National Trust  
 Natural England  
 Peak District National Park Authority  
 Pennine Prospects

Private Landowners  
 RSPB  
 Severn Trent  
 United Utilities  
 Woodland Trust  
 Yorkshire Water Services







## CONTRIBUTING PARTNERS



The work of the partnership is delivered by the Moors for the Future staff team through the Peak District National Park Authority as the lead and accountable body. We also receive financial support from our partners Environment Agency, National Trust, Pennine Prospects, RSPB, Severn Trent, United Utilities, Yorkshire Water, and support and advice from representatives of the moorland owner and farming community including the NFU and Moorland Association.

[www.moorsforthefuture.org.uk](http://www.moorsforthefuture.org.uk)

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