



Audit, Resources and Performance Committee Friday 22 January 2016 - Item 6 (Part A)

Moors for the Future Partnership

Operational Plan 2016-2017

Including a review of 2015 –16 and a forward look for delivering legally committed contracts and expected areas of business development.

Authors: S Davison, C Dean, M Buckler, J Walker, D Wilson

Date: 19 November 2015



Contents

	Page
1 Executive Summary	2
2 The Purpose of the Operational Plan	2
3 Look Back at 2015/16	3
4 This Year's activity – 2016/17	18
5 Risk Assessment	25
6 Look Forward – 2017/18	26
7 Look Forward – Business Development (Expectations)	28
8 Monitoring this Operational Plan	28

I Executive Summary

This is the fourth annual Operational Plan produced by the Moors for the Future Partnership (MFFP). The Plan communicates to our funding partners and staff how we intend to deliver the agreed projects. This year we have changed the format to report by project rather than by objective area.

This strengthening of our business planning reflects the organisational changes made during 2012-13 to transform MFFP from a project delivery vehicle to a programme delivery vehicle. These changes have the support and backing of our accountable body, the Peak District National Park Authority, and of our many partners.

Over the past 13 years the MFFP team has successfully delivered a range of technical solutions that address our mission - ***“to restore the quality of the South Pennine Moors, to improve its benefits as a quality water catchment area, a diverse ecological, recreational and agricultural resource which will be managed to ensure the enduring legacy of these benefits.”***

Over the past year, on behalf of 14 partners, we delivered 31 projects with a total project value in excess of £5.3m.

This year, **2016 - 17** we have a committed budget (to date) of £5.5m agreed with partners to deliver 16 projects with an additional project value of £75,000 in the pipeline. In 2017-18 our operational plan covers the deployment of just over £5m (contracted).

In our Business Plan 2013 – 2020 we address the bigger picture of how MFFP will develop the funding streams for further remediation and legacy management. We will produce updated Vision and Strategy documents and will be reviewing our suite of management documents over the next 12 months.

The continuing challenge for MFFP this year will be to ensure that the organisation has the capacity and capability to continue to deliver programmes over this transition phase. We are planning to continue the successful delivery of our programme of projects and our resource planning accounts for this.

2 The Purpose of the Operational Plan

The purpose of the operational plan is to allow members of the Peak District National Park’s Audit Resources and Performance Committee to monitor overall programme progress and how the MFFP outcomes and projects together achieve PDNPA - and our other partners’ - objectives. In particular, it will be the business tool by which MFFP manages its annual activities to achieve our objectives:

- **Objective One – Awareness Raising**

“To raise awareness and promote positive action for the conservation of the moorland landscape”

- **Objective Two – Conservation Management**

“To develop and deliver sustainable land management for these important upland resources, ensuring appropriate consideration of all of their benefits”

- **Objective Three - Science**

“To develop expertise for the sustainable management of moorlands ensuring that the programme is properly resourced with the capacity and capability to achieve this”

3 Look Back at 2015/16 (this is a summary of highlights)

Projects

MoorLIFE

The project was extended until August 2015 to enable the final deliverables to be completed. This year we undertook an innovative localised hand application of lime, seed, fertiliser and Sphagnum on Bleaklow, to areas where previous works had not covered bare ground with the usual success rate. We also completed preparation of the final communications and science deliverables. Reports produced were the AfterLIFE Report, Layman's Report, Final Dissemination Report, Vegetation Monitoring, Hydrological Monitoring and Carbon Audit Reports, and Sphagnum Guide.

We issued 8 press releases and targeted news items in the final months of the project, achieving media coverage at local, national and international level on 26 occasions.

The Project was audited in September (obligatory for a Life Funded Project). The final report and claim form (including the auditor's report) was submitted in November, within budget.

We gave a presentation on how to exit a Life Project in December to the Life Platform meeting in Woking.

Making Space for Water Project

Extended monitoring on impact of bare peat stabilisation and sphagnum recovery on flood risk mitigation

The aim was to continue the current monitoring programme to show the effect of re-vegetation and gully blocking on discharge from the previously bare and degraded micro-catchments on Kinder. This is particularly relevant in the light of the recent (summer 2015) intensive inoculation of the Nogson micro-catchment with *Sphagnum* plugs. Further to maintain consultations with the former phase 1 and 2 project's hydrological experts and collaborators at the University of Manchester, to review and update the present experimental design and to review, purchase and install further equipment to more fully safe-guard the collection of relevant data.

Develop a costed proposal for longer term studies (MSW3)

The aim was to develop a proposal for a third phase of the Making Space for Water project centred around the longer term reduction in peak flows from headwater catchments following re-vegetation and gully-blocking, and also including the effects of Sphagnum colonisation by intensive propagule inoculation. The proposal will also include a further modelling study to predict the potential impact on flood risk in a case study catchment such as Glossop which has experienced flooding in the past. The proposal included the further development of evidence gathering to ascertain the effects of wider catchment clough woodland planting on peak flow reduction.

Additional benefits (or Ecosystem Services) accruing as a result of the re-vegetation works was also included for investigation within the proposal. These will include carbon fluxes, water quality, and diversity (microbes, plants, invertebrates and small mammals).

Investigate further the potential impact of headwater re-vegetation on downstream flood risk using a percentage contribution model

The aim was to show the proportional contribution of peak flow that was made by upstream catchment areas to any point within the downstream Derwent catchment flood risk areas. Although this had already been accomplished for the flood event of winter 2000, the aim is to populate the model with a further set of peak flow (preferably flooding) events to provide more certainty to the prediction.

A further aim of this study was to explore the potential impact of headwater re-vegetation on this contribution and predict an effect on the number of properties at risk in flood risk areas downstream.

Critical appraisal of the three Defra Multi-Objective Demonstration projects

The aim was to provide a summary of headline evidence arising from the three UK multi-objective demonstration projects and also to provide a critical look at the advantages and limitations of the approaches used, the stumbling blocks along the way and useful pointers for future investigations.

Output

A report with different sections outlining the results from each of the above sections was produced at the end of December 2015.

Moscar Science Project

This project aims to evidence the impact of blocking erosion gullies in blanket bog on which the dominant vegetation cover is heather *Calluna vulgaris*. We aim to evidence the impacts of these works on vegetation, water tables, water flows and quality, and additionally on breeding bird abundance, including red grouse *Lagopus lagopus*.

The project manager began work on the Moscar Science Project in June 2015. Since June the following monitoring activities have taken place:

- Surveyed forty 2m x 2m vegetation quadrats,
- Monitored visitor use of the Whinstone Lee Tor footpath before and after restoration,
- Grouse survey,
- Installed four automated water table loggers that continuously measure water table height and performed four-weekly downloads of these loggers,
- Monitored water quality at two sites on a four-weekly basis,
- Carried out a twelve-week (autumn) manual dipwell campaign,
- Monitored particulate organic carbon (POC) loss from blocked and unblocked gullies,
- Installed manual dipwell transects in blocked and unblocked gullies,
- Installed a water flow station and rain gauge.

Kinder Catchment Monitoring Project

This five year monitoring project was completed this year and a final report published. The aim of the project was to evidence the impact of bare peat stabilisation on vegetation recovery, water quality, water flows and water tables in the blanket bog catchment of the Kinder Reservoir on Kinder Scout for data collected up until January 2015. Updated analysis using data collected during 2015 will be carried out in March 2016. Key findings to date:

- Of 83 gully dams surveyed between 2 and 3.5 years after installation, 95% showed signs of peat accumulation/water pooling behind the dams, and 94% had upstream vegetation establishment.
- The extent of bare and eroding peat was reduced by 75% between 2011 and 2014 as a result of the establishment of the nurse grass crop.
- A *Sphagnum* survey along transects of a 48 ha area within the Kinder catchment clearly showed that *Sphagnum* has increased on Kinder Scout. In 2010, *Sphagnum* patches were few and far between, with only 30 patches recorded. Four years later, in 2014, a repeat of this survey recorded 913 patches.
- Water tables were 17 cm higher 14 months after seeding; however, relative to untreated bare peat areas this increase was not significant when compared to a control system where no land management intervention was carried out but where water tables also increased – potentially as a result of higher rainfall in the post works monitoring period. Longer monitoring is required to inform the impact of revegetation and gully blocking on water tables at this site.
- The impact of the stabilisation and gully blocking working on storm water flows in the catchment. Longer-term monitoring would be required to fully assess the impact as post stabilisation and gully blocking data were only available for 13 months.
- Water quality (dissolved organic carbon) temporarily improved upon the application of lime as part of the revegetation work. Data analysed in the final report only included data up until December 2014 whereas lime and fertiliser treatments on Kinder continued until spring 2015.

Further analysis on 2015 water data is required to fully assess the short-term impacts of revegetation works on the Kinder Catchment Project.

Woodhead Gully Blocking Monitoring Project

This project was set up to monitor the impacts of gully blocking and re-vegetation works on blanket bog habitat undertaken through MFFP's EU LIFE funded 'MoorLIFE' project. The project has run for three years with a final report for the current funding produced this year. Five months of data was collected prior to gully blocking, and two years post-gully blocking. A significant constraint to the monitoring was that the baseline period of monitoring, the period against which it was anticipated evidencing change delivered through the conservation works, was during 2012 – the second wettest year on record (Met Office, 2015). To counter this constraint, longer-term monitoring is required to evidence future changes at the treatment and control sites. Key findings in 2015:

- Of 68 stone gully blocks surveyed all (100%) were found to be holding water, and 82% were found to be holding peat when compared to measurements taken prior to gully blocking. Sediment depth behind dams was found to have increased by approximately 14 cm of peat relative to an unblocked control 17 months post installation (as this catchment is vegetated sediment supply is lower than on bare peat as sediment comes just from the gully walls). Dams have not yet fully 'matured' and have capacity to further accumulate sediment.
- The extent of bare peat on Woodhead has been reduced by 83% to approximately 15% between 2011 and 2014; 77% of this vegetation cover was the grass nurse crop, the remainder was 'blanket bog' vegetation (Dwarf shrub species, mosses and some sedges).
- The water table was monitored at two locations adjacent to gully blocks to evidence the direct impact of gully blocking. Because the baseline monitoring period happened to be during a year of record breaking rainfall and additionally because our water table logging equipment was stolen from this site and had to be replaced, our data and analyses to date have proved inconclusive and further monitoring and investigation is required to evidence these impacts.
- The water flow data collected from Woodhead was considerably 'noisy', again due to the record-breaking rainfall in 2012 and the limited number of storm events we were able to monitor in 2012 prior to gully blocking. There were indications of a decrease in peak storm flow for small storms following gully blocking, although this effect appeared to be transient and subtle. A decrease in percent runoff was also observed for a short time, but again appeared to be transient. This suggested that a level of additional storm water 'storage' was created in the catchment (i.e. behind dams) but reduced rapidly with time.
- In Stable Clough, a flow monitoring site at the moorland edge, 54% of the catchment was bare peat and was revegetated. No difference in peak discharge and lag times was found as a result of the revegetation within 17 months after seeding. The vegetation establishment may not have been sufficient to increase roughness enough to affect storm hydrographs. Longer term monitoring is required to better evidence the impacts of the establishing vegetation on storm flows in this catchment.
- Gully blocking in vegetated blanket bog on Woodhead had no observable impact on water colour or DOC concentrations during the 17 month post-works monitoring period, this time frame may be too soon to evidence any changes in water quality.
- Re-vegetation treatments – in particular liming treatments – caused a temporary decrease in water colour and DOC concentration of up to 43% for between four and six months. As maintenance applications of lime were made annually throughout the monitoring period, and so the results to date only demonstrate the short-term impacts of the treatments themselves, rather than the effect of re-vegetation on water quality.

Catchment Restoration Fund (and additional NTHLS work)

The Peatland Restoration Project funded through the Catchment Restoration Fund completed in March 2015. An independent audit of the project was completed in summer 2015. This was then submitted to the Environment Agency to complete the project.

On behalf of the National Trust, Dark Peak Estate, the following works were completed under the HLS scheme:

- Ashop Moor - 167ha treated with lime and maintenance fertiliser
- East Crowden – 40ha treated with lime and maintenance fertiliser
- Kinder – 58ha treated with lime, seed and initial fertiliser & 20ha treated with lime and maintenance fertiliser;
- Park Hall Farm - Heather brashing undertaken in 2014/15 to treat the bare peat on the 11ha site but did not complete the works as anticipated and so an additional 60 bags of heather brash were spread in order to complete this phase of the works. Also within this financial year the site received its first aerial application of lime, seed and initial fertiliser.

South Pennines Commons Project

In the 2015/16 financial year the South Pennines Commons Project completed its assigned outputs across the sites of Walsden, Castleshaw, Butterworth, Blackstone Edge and Langfield Moors. In this last year of this project this work consisted of maintenance aerial applications of lime and fertiliser across all treatment areas in Walsden, Butterworth, Blackstone Edge and Langfield; plus some hand spreading of lime, fertiliser and seed in areas inaccessible for aerial application such as below powerlines and adjacent to water. All claims were made in a timely manner and have been paid.

Maintenance lime and fertiliser treatment for Castleshaw was delivered separately by the National Trust, owing to strong synergies between Castleshaw and current works on the NT's Marsden Moor Estate.

This completes the deliverable objectives of this project. However work on these sites is likely to continue through MoorLIFE 2020, particularly in the form of a second maintenance application of lime and fertiliser.

Evidence to support achieving Favourable Condition Status on blanket bog habitat through land management intervention; and trials of introducing *Sphagnum* into *Molinia caerulea* dominated blanket bog Project

Trajectories

The aim of this project is to assess the impact of moorland restoration activities in the Dark Peak and South Pennines on achieving favourable condition status for blanket bogs. The project used data and information from Yorkshire Water's SSSI recovery programme and MoorLIFE, and expertise from Moors for the Future. The project outputs provided Natural England and its partners with evidence and direction in relation to the implementation of moorland intervention techniques on blanket bog towards the recovery of the South Pennine Moors SAC. It will help direct future targeting of potential limited agri-environment funding and provide a base for calculating milestones to show positive progress. The four land management interventions chosen for this investigation include:

- a. bare peat stabilisation:
The specific aim of this section is to show the effect of stabilisation and re-vegetation of bare peat patches on plant diversity, to predict trajectories for recovery to favourable condition and suggest milestones and management changes to maintain and promote this recovery.
- b. diversification of *Molinia*-dominated vegetation:
The specific aim of this study was to show the effect of traditional diversification interventions (flailing, grazing, burning, herbicide spraying and seeding) on *Molinia*-dominated habitats using one-off quadrat-based surveys and comparing a treatment area with a chosen control area.
- c. grazing

d. gully blocking:

The specific aim for the above two interventions was literature based review of studies to provide recommendations for current best practice and milestones for recovery

Output

A report with trajectories, milestones and management recommendations by March 2014 – subsequently delayed due to uncertainties about restoration implications. Yet to be signed off (Nov 2015)

***Sphagnum-in-Molinia* diversification trials**

The aim of these trials is to show that a simple 'one-off' flailing intervention, accompanied by the application of *Sphagnum* propagules, will lead to significant increases in the cover and numbers of different *Sphagnum* species together with an accompanying reduction in the cover of *Molinia caerulea* and other graminoids. Subsidiary aims include the additional effect on *Sphagnum* establishment of: windrowing the post-flailing mulch, or leaving it lying on the surface; the propagule and species type providing the most effective colonies; the topography of the terrain that is most suitable for propagule development; and the relationship of this development with water table depth.

Outputs

Full set up of trial by March 2015

Presentation to National Trust-hosted *Molinia* conference in Huddersfield (15 Sept 2015)

Preliminary report submitted to National Trust for posting on website (October 2015)

Draft report available for submission to Natural England (March 2016)

Monitoring *Sphagnum* Donor Sites Project

This project supports SSSI favourable condition by monitoring *Sphagnum* donor sites. The aim is to increase knowledge of *Sphagnum* recovery following harvesting. During this year the following has been achieved:

- Site identified for pilot monitoring scheme,
- Quadrats set-up to monitor how hummock forming *Sphagnum* species recover from a 10% harvesting rate,
- Scope of project and detailed methodology agreed with NE.

Natural England Milestones and Trajectories Project

The aim of this project is to estimate trajectories of progress towards favourable condition in relation to the Commons Standards Monitoring approach adopted by Natural England for assessing condition status. The data contributing to this work will involve blanket bogs and other upland dry heath vegetation and originate from MFFP and also other major peatland restoration partnerships (where available) which provide evidence of recovery rates. The trajectories will be used to develop a set of milestones to demonstrate change in condition in different circumstances and under different interventions. A simple monitoring process will be recommended to assess change. The potential for using proxies will be explored to allow rapid and repeatable assessment of changes in key indicators for example biodiversity, carbon and water. Remote sensing / surveillance techniques will be identified that would be suitable for countrywide monitoring of the change in condition of blanket bog and upland dry heath.

Output by February 2016

A report will be produced to show trajectories of progress towards favourable condition and to suggest milestones of progress. Recommendations will be given for the use of simple proxies for recording change and for monitoring change at a landscape scale using specific remote surveillance techniques.

Burbage Brook Monitoring Project

The Burbage Brook Monitoring Project continues to monitor the effects of new native woodland creation and replacement of existing conifer plantation on water flow and water quality. This year the following work has been completed:

- Reinstated flow gauging stations at Burbage Brook upstream and downstream and replaced wooden infrastructure with metal installation,
- Moved Burbage Brook downstream gauging station to a more appropriate location,
- Set-up a control gauging station,
- Installed a rain gauge,
- Began monthly downloads of loggers,
- Began monthly water quality monitoring.

Clough Woodland Project and Natural Flood Risk Management

We completed significant further work on extending this programme of works in line with the project business plan. Additional funding from the Woodland Trust, Environment Agency and National Trust was secured and other opportunities identified with other regions of the Forestry Commission.

We completed the communications activities required for the year, including collation of information about the benefits of clough woodland planting to land managers. Rob Twiggs completed a video about the Wildlife Trust's LEMUR project, which he was trained through, as well as undertaking filming for the Clough Woodland Project separately.

We have worked with different areas of the Environment Agency, using the Woodlands for Water dataset, to identify potential natural flood risk mitigation activities. These included Slowing the Flow in the Dane Valley, Trawden and the Wessenden valley.

We have also investigated further working with the Woodland Trust, at Smithills in Lancashire and by developing a LIFE project for Clough Woodlands.

Countryside Stewardship bids were submitted for land at Moscar in the Upper Derwent.

Private Land Projects

We have developed the scope of our work with private landowners into a distinct portfolio of stand-alone projects that are being delivered in tandem with one another, and any other projects, through our wider programme of works.

Capital works as part of the portfolio of projects have collectively accounted for a large proportion of the physical works activities MFFP have delivered in 2015/16, and has played a significant role in securing staffing continuity for the Partnership.

The following gives an overview of activities by individual HLS Agreement.

Saddleworth HLS

- Applied lime, seed and initial grade fertiliser to 148.2 ha (March 2016).
- 77 hectares of seeding into existing swards (Summer 2015).
- 30,000m of gully blocking using a range of techniques including plastic, stone and heather bale dams (Winter 2015/16).
- Sphagnum harvesting and translocation of 16,000 clumps of sphagnum planted into 80ha (Autumn 2015).
- Application of 413 bags of heather brush to complete the treatment of all bare peat (Winter 2015/16).

Crowden HLS

For administrative reasons, this has been split into two sections, which have been re-named as follows:

Grindsbrook HLS

- Applied lime, seed and initial grade fertiliser to 114.2 ha (Summer 2015).
- Aerial bracken control treatment delivered in 29 ha (Summer 2015).
- Application of 940 bags of heather brash to complete the treatment of all bare peat (Autumn/Winter 2015/16).
- 17,672m of gully blocking using a range of techniques including plastic, stone and heather bale dams (Winter 2015/16).

Crowden West HLS

- Application of 60 bags of heather brash to complete the treatment of all bare peat (Autumn/Winter 2015/16).
- 3,500m of gully blocking using a range of techniques including plastic, stone and heather bale dams (Winter 2015/16).

Moscar HLS

- Completion of 400m of upland path on Derwent Edge and associated bare peat re-vegetation with heather brash and lime, seed & fertiliser on 3.5ha of eroded moorland.
- 24,000m of gully blocking using a range of techniques including peat, stone and heather bale dams (Winter 2015/16).
- 1,800m of gully blocking on land adjacent to Moscar (Bradfield) using a range of techniques including peat, stone and heather bale dams (Winter 2015/16).
- During the year, the Moscar Science Project deliverables were integrated with the Moscar HLS deliverables and will be reported as such in future years.

Deer Hill Moss HLS

- Applied lime, seed and initial grade fertiliser to 136 ha (March 2016).
- Application of 600 bags of heather brash to complete the treatment of all bare peat on the site (Autumn/Winter 2015/16).
- 14,656m of gully blocking using a range of techniques including plastic, stone and heather bale dams (Winter 2015/16).

Peaknaze HLS

- Application of 4,945 bags of heather brash to bare peat on the site (Autumn/Winter 2015/16).
- 2,706m of gully blocking using plastic & peat dams (Winter 2015/16).
- Application of brash to a trial site to inform future top-up treatments on previously restored areas that are affected by abundant cushion mosses.

The Roych HLS and Lee Farm HLS

- 3,400m of upland flagstone path constructed (Winter 2015/16) across these two separate HLS agreements. This is the Brown Knoll path that was originally identified as requiring works through the Moors for the Future HLF project.

Mossy Lea HLS

- Assignment process completed and a re-profiled capital works plan agreed with Natural England and the HLS Agreement Holder. Delivery to commence in 2016/17.

Wessenden Head HLS

- Assignment process completed and a re-profiled capital works plan agreed with Natural England and the HLS Agreement Holder. Delivery to commence in 2016/17.

Stalybridge HLS

- The first of two lime, seed and fertiliser applications to 155.5 ha on Stalybridge was successfully completed.

Morridge Moors HLS

- A capital works costing was produced by MFFP for proposed grip blocking on the site. MFFP has been assigned to deliver these works in 2016/17

Turncliff Common HLS

- A capital works costing was produced by MFFP for proposed grip blocking on the site. This costing has been used by NE to establish a new HLS scheme on the site. MFFP has been assigned to deliver these works in 2016/17

In 2015/16 we communicated the full range of live works to include footpath works, bare peat re-vegetation and hydrological restoration. Communications deliverables were included as integrated parts of the project delivery allowing for synergies between projects to be achieved. The works have been communicated using a range of approaches including the Moors for the Future web site, media and press releases, student walks & talks and direct communications with stakeholders.

Community Science Project

2015 saw the start of the delivery phase of the HLF funded Community Science Project in earnest. Since March this year our Community Science team have engaged, inspired and supported delivery of over a thousand volunteer hours in which volunteers have;

- Attended 1 of 12 bumblebee or Sphagnum moss identification training sessions (target of 10 per year).
- Submitted data along 110 bumblebee transects.
- Submitted 242 Community Science bird and butterfly records.
- Adopted, set-up and started monitoring 4 Environmental Monitoring sites.
- Helped distribute over 10,000 survey postcards to local visitor centres, tourist attractions, businesses and at events.
- Attended, helped organise and staffed over 15 public events.
- Helped us film our very own Environmental Monitoring video.
- Helped us put out press releases and generate over 75 online, radio, TV and print media articles.

Our web presence continues to increase as our webpages continually improve in design and content and our social media audience reach increases, as of September 2015 we have:

- 891 social media followers (cumulative figures at September - not necessarily representing individuals).
- 347 Facebook 'Likes' and audience reach of 4,673.
- Over 500 Twitter followers (Project target for 2018 exceeded).
- 435 volunteers on emailing list.
- Created a Blog which has had 614 Blogger page views to date (September 2015).
- Circulated the first editions of our Newsletter - the Community Scientist.
- Launched our first photography competition which received over 150 entries.
- Celebrated the addition of two new surveys to our Community Science survey calendar.
- Increased the audience reach and functionality of the MoorWILD Smartphone application, developed by the MoorLIFE project to enable more volunteers to engage in recording CSP wildlife sightings.

We have nurtured collaborations with national wildlife recording schemes including the Bumble Bee Conservation Trust and Mammal Society to provide the opportunity for Community Scientists to extend their volunteer journey whilst increasing our audience reach.

We have also been awarded a Highly Commended Certificate from the EUROPARCS Federation for Best Practice Communication work, raising awareness of how vital conserving the internationally important Blanket Bog habitat of the South Pennines Special Area of Conservation Natura2000 site is, through our Community Science Project.

MoorLIFE2020 Project

Following extensive revisions, we received confirmation of funding from the EU LIFE 2014 fund for this project, giving a project budget of €15,996,416. The project bid was one of the highest scoring applications across the EU, which Defra congratulated the team on.

The Project started on 1 October 2015 and since then we have recruited the Project Manager, Project Administrator, Contracts Manager, GIS Officer, Senior Research & Monitoring Officers, Research & Monitoring Officer and will be recruiting Conservation Works Officers and Assistants in spring 2016.

Our first press release announcing the award achieved media coverage on 20 occasions, including an interview on regional television (BBC Look North).

We held a start-up meeting in Edale for partners and stakeholders, attended the EC kick-start meeting in Brussels and have held start-up and continuing meetings with Associated Beneficiaries.

The project established its governance structure, holding its first Project Board in January 2016.

We submitted the first financial update at end November 2015 and delivered a presentation at the Welsh Assembly (JNCC Life bidding) meeting in Cardiff.

The following actions took place:

- Recruitment of project team
- Development of Integrated Project Plan and Objective plans
- Undertaking contracting for all feasible works through the life of the project;
- Planning and developing landowner and agency consents to capital works
- Development of Approved Code of Good Practice for Active Blanket Bog and associated supporting materials with stake-holders started, in association with Natural England and the Upland Management Group's Blanket Bog Restoration Strategy for England;
- Development of project website began
- The landowner and stakeholder engagement plan began development
- Planning and setting up of an extensive programme of monitoring the impacts of capital works on biodiversity and ecosystem services

Impacts of land management interventions

The aim of this preparatory action is to use our existing data holdings (and seek to incorporate appropriate data from our partners and collaborators) to develop trajectories for five desired outcomes of the project, two that evidence the success of concrete conservation actions in the project and three that address three ecosystem services that are of key interest to the three project co-financers:

- Vegetation recovery / changes
- Water tables
- Water quality (Dissolved Organic Carbon (DOC) and Particulate Organic Carbon (POC))
- Water flows (water provision)
- Carbon accumulation

These actions will be delivered with external assistance from experts in ecological and hydrological data analysis. It will be carried out during the first six months of the project in order that it can inform wider monitoring programme planning.

Outputs (March 2016)

- A comprehensive database of MFFP data for the five focus variables.
- Five trajectories, one for each of the focus variables / outcomes. These will be in a format that enables simple communication of what impact project actions will have over time, and also in a format that a site's progress at any given time can be simply assessed.

Monitoring the biodiversity and ecosystem service impacts at demonstration sites and against blanket bog restoration trajectories at other project sites

The aim of this action is to monitor the impacts of the concrete conservation works on biodiversity and key ecosystem services at four demonstration sites including bare peat, heather-dominated, *Molinia*-dominated and cotton grass-dominated. The emphasis of the monitoring will be to capture the effect of *Sphagnum* colonisation from propagules. The data will be used to update existing trajectories and create new ones and to ground-truth Earth Observation data. Monitoring will be specifically aimed at: water quality (fluvial carbon); water flows; water tables; and carbon accumulation behind gully / grip blocks at the four demonstration sites.

Advocacy (meetings / initiatives) and events attended

The team have represented the Moors for the Future Partnership and its interests at a wide range of regional and national meetings and initiatives (as delegates, technical advisors and / or steering committee members) including:

- 'Sphagathon' – four events attended - one organised
- South Pennine Moors (SPM) Sustainable Land Management Group
- Peak District Fire Operations Group
- SOURCE Project (Calderdale)
- SPM *Sphagnum* Technical Advisory Group
- Acting as secretariat for the Upland Management Group's 'Sphagathon'
- STEMnet (Science, Technology, Engineering and Mathematics Network)
- IUCN Peatlands UK
- Upland Hydrology Group
- Upper Mersey Catchment Partnership
- River Don Catchment Partnership
- Aire and Calder Catchment Partnership
- River Derwent Catchment Partnership
- Manchester and Pennine Waters forum – 'soapbox' talk
- STEM Ambassadors – Year 10 enrichment day talk, Longdendale High School

Presentations (oral, posters)

- *Reducing wildfire risk across 650 km² of Pennine Moorland in one project that integrates land management, innovative communications and science.* Wildfire2015, the UK wildfire prevention conference - Wildfires: Prevention Better than Cure, 9-10 November, Glasgow; J Walker.
- *Benefits of landscape scale blanket bog restoration on biodiversity conservation and ecosystem services.* British Ecological Society Climate Change Ecology and Plant, Soils and Ecosystems Groups joint conference - Ecosystems and Climate Change mitigation. Invited presentation; 2-3 November, London; J Walker.
- *Benefits of restoration on deep peat blanket bogs in Northern England: evidence from empirical research and monitoring, and expert stakeholder assessment.* Society for Ecological Restoration 6th

World Conference on Ecological Restoration – *Towards Resilient Ecosystems: Restoring the Urban, the Rural and the Wild*, 23-27 August, Manchester UK; J Walker.

- *Moors for the Future Partnership's positive impact on water quality and flood risk right down the catchment*. Invited presentation to Sir Philip Dille, Chair of the Environment Agency, 8th June, Belper, Derbyshire; J Walker, C Dean.

Articles in preparation this year:

- Coldwell, D. et al. Green-space engagement and urbanisation - impacts on biodiversity knowledge and conservation support.
- Coldwell, D. et al Green-space engagement and urbanisation - impacts on human health and well-being.
- Coldwell, D. et al Impacts of landscape-scale conservation restoration on the visitor experience within the Dark Peak Nature Improvement Area.

Student visits / field trips

- Manchester Metropolitan University geography student visit; presentation to first year students
- National Parks Educators' Conference
- Peak District Conservative Association (Glossop Branch) – Update on MFFP works
- Defra Life funding workshops
- Lunchtime seminar at Manchester Metropolitan University
- Sheffield Hallam University – evening Geography departmental seminar talk on work of MFFP and science programme
- Sheffield Hallam University – afternoon visit of Geography students
- 'Science in the Park' events, Peak District National Park

We continued to participate in the IUCN Peatland Programme UK Steering Group, as well as participating in workshops to develop an EU LIFE funded peatland Integrated Project bid and leading on the working group to identify barriers to action across the UK.

We also presented posters on the MoorLIFE carbon audit and ran sphagnum workshops at the Pennine Prospects Conference 2015 in Halifax including presenting posters on flood mitigation and clough woodland creation.

Contributions to consultations / reviews / research

- Environment Agency's River Basin Management Plans
- Environment Agency's Flood Risk Management Plans
- Natural England's Peak District Long-term Monitoring Network Site
- Monitoring Indicators of Climate Change (Peak District National Park)

Events hosted

We disseminated the outcomes of the Making Space for Water Project at a Symposium in Manchester in April, attended by 122 people representing land managers, academics, private companies and NGOs.

We led a field visit with the Environment Agency Directors Peter Fox and Alison Baptiste, and Amanda Nobbs, (Chair of the Thames Regional Flood & Coastal Committee) to show them our work on Kinder Scout.

A "Spagathon" event was hosted by us in July on Kinder Scout, starting off the series of 5 visits by the Upland Management Group to see a range of techniques used in the reintroduction of Sphagnum.

We hosted a visit by the EU BogsLIFE+ project team to share our knowledge and expertise on running a successful life project.

We led a field trip to Black Hill with 40 delegates from the Society of Ecological Restoration to introduce them to our work and explain demonstrate the results of moorland conservation.

Student Projects supported:

Angus Rosenburgh submitted his PhD in September and passed his viva in November.

Andrew Stimson – gained his doctorate for his MFFP supported research; submitted his PhD thesis and passed his PhD viva.

Chris Harrison is due to complete his doctorate this year

Debbie Coldwell is due to complete her doctorate this year

Dylan Young is due to complete his doctorate this year

Web/online

In addition to supporting project communications the team ensured the Partnership's online presence was maintained with regular updates about our work:

- We produced a quarterly MoorNews e-newsletter for partners and stakeholders, covering Partnership news and project work to an increasing subscriber list of 780 (November 2015).
- We updated the Partnership website with news items, new project information, research news, posters and video pages to refresh content. There was a total of 97,000 page views from 21,000 website users (a 32% increase of website users on the previous year - at 1 November 2015).
- Our continued presence on social media was strengthened with planned campaigns, including promoting our achievements in preventing carbon emissions during the Paris Climate change talks in December.
- Popular campaigns on social media included promotion of smartphone apps delivered by the MoorLIFE project which reached over 56,000 accounts in one week.
- Our messages have been shared and supported by partners including the National Park, Environment Agency and the EU LIFE programme.
- Our Twitter followers increased to 2,776 by 1 November (a 17% increase on the previous year)
- Support on Facebook increased by 76% with a total of 636 likes by 1 November with popular posts reaching over 1,000 people

Media highlights

Our regular planned media release schedule resulted in national and regional coverage of:

- Community Science Project Big Moss Map and Mountain Hare Surveys
- EU LIFE funding for the MoorLIFE 2020 Project
- Smartphone apps
- MoorLIFE Project results

Outputs

Reporting / publications

- Kinder Catchment Monitoring Project - final report
- Woodhead Water Project - final report
- Dark Peak NIA - final report
- Making Space for Water - final report for Phase 2
- MoorLIFE Project final reports
- Moscar Science Project update report

- Trajectory of vegetation change report
- Trajectories of hydrological change - briefing note
- *Peatland conservation at the science-practice interface*. Joseph Holden, Aletta Bonn, Mark Reed, Sarah Buckmaster, Jonathan Walker (MFFP), Martin Evans, Fred Worrall; in 'Peatland Restoration and Ecosystem Services – Science, Policy and Practice'. Cambridge University Press.
- *Evidencing the impact of moorland restoration work on SSSI condition status in the South Pennines*. MFFP report to Yorkshire Water and Natural England.
- Database of scientific data with INSPIRE standard metadata
- Favourable conditions Table Report for NE (Karen Rogers)

Collaborating partner outputs and outputs acknowledging MFFP support

Dixon, S.D., Worrall, F., Rowson, J.G., Evans, M.G. (2015) *Calluna vulgaris* canopy height and blanket peat CO₂ flux: Implications for management. *Ecological Engineering* (75): 497–505.

Edokpa, D.A., Evans, M.G., Rothwell J.J. (2015) *High fluvial export of dissolved organic nitrogen from a peatland catchment with elevated inorganic nitrogen deposition*. *Science of the Total Environment* 532: 711-722.

Boothroyd, I.M., Worrall, F., Allott, T.E.H. (2015) *Variations in dissolved organic carbon concentrations across peatland hillslopes*. *Journal of Hydrology* 530: 372-383.

Carroll, M. J. et al. *Hydrologically driven ecosystem processes determine the distribution and persistence of ecosystem-specialist predators under climate change*. *Nat. Commun.* 6:7851

Articles:

Walker, J.S., Buckler, M. & Turner, L. 2015. Sphagnum restoration – the work of the Moors for the Future Partnership. *Heather Trust Annual Report* 52-53.

Proctor, S. 2015. Moors for the Future; monitoring implications for climate change, water quality and biodiversity. Submitted to *Mammal Society Magazine*

Programme Management – achievements 2015/16

Our staff of 4.6 wte permanent, 19.6 fixed term and 34 casual posts delivered projects with a value >£5.3m.

We negotiated, tendered, contracted, and processed financial transactions with more than 100 contractors and suppliers and drew down funds/made claims amounting to £7.2m. Claims were drawn down from the Heritage Lottery Fund, EU LIFE fund and against Natural England HLS scheme in accordance with agreements. These are set to continue next year.

Quality assurance checks were undertaken on a quarterly basis – ensuring claims and financial data is up to date and reconciled with the National Park financial function. Associated Beneficiaries of the MoorLIFE Project (National Trust, Pennine Prospects, RSPB) also benefit from this procedure.

We trialled monthly time recording to enable recharging of time across projects to be more coherent. An online system is being investigated to further enhance this function.

Our Project Management toolkit continues to be developed. Weekly project updates take place and project management meetings have been increased to take place on a monthly basis. We continue to strive to improve our project and programme management techniques.

Conferences attended: Wildfires 2015, Upland Hydrology 2016,

Training in piloting UAVs, MS Project, Excel and Access, GIS software, NPA Job Evaluation panel, ecological identification and resilience (as well as individual coaching and mentoring) was undertaken.

Four Partnership Strategic Management Group meetings and two workshops on our future vision document took place during the year.

There have been approximately 4,800 hours of work undertaken by our casual teams between March and October 2015. The pool of Administration Assistants was strengthened.

The cross-project system of working continues to enable us to use resources efficiently and gives us resilience in our programme management. Added value is key to our placement in the sector.

Staff visited the West Highland Way path work project to observe path work techniques in a challenging terrain.

We met with staff from Thorne and Hatfield Moors, the Cumbria BogLIFE Project and the South West Peak Project to share knowledge gained.

Staff changes during the year:

Many staff continue to work across multiple projects.

Starting:

Kate Morley acted as Project Manager, MoorLIFE 2020 Project from the start of the project until the manager was appointed

Brendon Wittram - Contracts Manager and Jorge Auñón - GIS Officer/Technician are both working on MoorLIFE2020 and Private Lands Portfolio

Jonathan Moore – MoorLIFE 2020 Project Administrator

Zoe Buswell - Programme Administrator

Moving:

Debra Wilson acted as Communications Programme Manager

Alison Johnston was appointed Programme Administrator

Leaving:

David Hargreaves took up a post as the Project Manager on the Natural England led EU LIFE funded Thorne and Hatfield Moors Project.

Gareth Roberts was appointed Sphagnum Recovery Project Officer for the RSPB at Dovestones.

Laura King left after guiding the MoorLIFE Project to a successful completion, Louise Turner moved to the post of External Funding Officer for the Peak District National Park.

Rachael Maskill left to take the post of Project Manager of the Saltscape Project in Cheshire.

4 This year's Activity – 2016/17

Continuing Projects

Continued monitoring across our programme of monitoring sites

We will keep our monitoring sites ongoing subject to available resources (Kinder Catchment Project, Woodhead Gully Blocking Monitoring Project, MoorLIFE, Catchment Restoration Fund Project sites) to evidence continued recovery of 'restoration' sites on biodiversity and ecosystem services, and their resilience to climate change. Additionally we are seeking resources to continue to monitor the sites we have set up in the Upper Derwent Catchment to evidence the impact of clough woodland establishment on water flows and water quality.

Making Space for Water Project

The aim is to develop a proposal for a third phase of the Making Space for Water project centred around the longer term reduction in peak flows from headwater catchments following re-vegetation and gully-blocking, and also including the effects of *Sphagnum* colonisation by intensive propagule inoculation. The proposal will also include a further modelling study to predict the potential impact on flood risk in a case study catchment such as Glossop which has experienced flooding in the past. The proposal will include the further development of evidence gathering to ascertain the effects of wider catchment clough woodland planting on peak flow reduction.

Additional benefits (or Ecosystem Services) accruing as a result of the re-vegetation works will also be included for investigation within the proposal. These will include carbon fluxes, water quality, and diversity (microbes, plants, invertebrates and small mammals).

Moscar Projects

Next year all of the above monitoring will be continued / repeated. In addition to this the following monitoring will also be carried out:

- Ten week manual dipwell campaign on dipwell transects and collection of gully water samples;
- Breeding bird survey;
- Four weekly downloads of water flow and rainfall loggers and flow gauging.

Moscar HLS

- Repair of Cutthroat track bridleway (>1500m) and associated bare peat restoration.
- *Sphagnum* introduction into 33ha previously the subject of hydrological restoration in 2015/16.

Catchment Restoration Fund (and additional NTHLS work)

Preliminary discussions with the National Trust, Dark Peak Estate have looked at the possibility of MFF delivering the following works in 2016/17:

- Park Hall Farm – 11ha lime and maintenance fertiliser treatment
- East Crowden – 40ha lime and maintenance fertiliser treatment
- Kinder – 20ha lime and maintenance fertiliser

Monitoring Sphagnum Donor Sites Project

- Repeat survey of pilot,
- Set up and monitoring of other harvesting scenarios, eg >10% harvesting rates of flush species,
- Report showing recovery rates at donor sites one year after harvesting,
- 'Best practice' guidelines for harvesting and selection of future donor sites.

Burbage Brook Monitoring Project

- Continue to download loggers on a monthly basis,
- Carry out monthly flow gauging,
- Continue monthly water quality monitoring.

Clough Woodland Project

The Woodlands for Water opportunity mapping and Guiding principles, to address the requirements of the Habitats Directive, will be undertaken for other parts of our core work area, notably the South Pennines and South West Peak. In line with this, further Countryside Stewardship applications will be submitted.

Private Lands Portfolio

Saddleworth HLS

- Application of lime and maintenance fertiliser to 148.2ha
- Treatment of 5.5ha of grassland with glyphosate and over-seeding with dwarf shrubs to increase species diversity.
- Sphagnum introduction: following on from harvesting and translocation efforts in 2015/16 sphagnum plug planting into >140ha will be undertaken maximising the extent of sphagnum across the site

Grindsbrook HLS (formerly Crowden HLS)

- Application of lime, and maintenance grade fertiliser to 88ha Spring/Summer 2016
- Second of 3 annually planned aerial bracken control treatments to be delivered in 29ha (Summer 2016)
- First year of 3 annually planned knapsack (ground application) bracken control treatments to be delivered in 5ha.

Crowden West HLS (formerly part of the now Grindsbrook HLS)

- Application of lime and maintenance fertiliser to 26.2ha

Deer Hill Moss HLS

- Application of lime, and maintenance grade fertiliser to 66ha (March 2017).
- Sphagnum introduction (scope to be agreed with Natural England).

Peaknaze HLS

- Application of lime, seed and initial grade fertiliser to 94ha (Spring/Summer 2016).
- Application of 750 bags of brash to previously restored areas and hand application of lime, seed and initial grade fertiliser.
- 18,858m of gully blocking various techniques to be confirmed. First of two phases of gully blocking with phase 2 for delivery in 2017/18.

The Roych HLS

- Confirm assignment of grip blocking elements of capital works for delivery in winter 2016/17.

Mossy Lea HLS

- Commence year 1 works delivery from re-profiled plan (exact profile to be confirmed with Natural England).

Wessenden Head HLS

- Commence year 1 works delivery from re-profiled plan (exact profile to be confirmed with Natural England).

Stalybridge HLS

- Second of two lime and fertiliser applications to 155.5ha concluding MFFPs remit on this agreement.

Morrige Moors HLS

- 800m of grip blocking in Autumn/Winter 2016/17.

Turncliff Common HLS

- 400m of grip blocking in Autumn/Winter 2016/17.

The 2016/17 communications deliverables for the Private Lands Portfolio will be defined at the start of the financial year. Deliverables will be defined based on the anticipated portfolio of works, and in consideration of the opportunities for synergy across the wider Moors for the Future programme of works. The communications deliverables will cover the full range of works planned for 2016/17 and once defined will be integrated into 16/17 works delivery plans.

Community Science Project

During 2016/17 we will:

- Set up and install two new Environmental Monitoring (EM) sites whilst maintaining and expanding monitoring of existing sites. Recruit and train 15 EM volunteers per site along with one Volunteer Project Assistant
- Launch one new Opportunistic (OM) and Targeted Monitoring (TM) survey.
- Contact 20 new volunteer groups and meet with 10 regarding TM surveys.
- Run 10 TM training sessions and set up 2 new transects for each of the existing surveys.
- Distribute 5,000 OM postcards.
- Reach 10,000 readers through local press.
- Attend 4 OM focussed events.
- Reach a 1 – 10% return rate of OM postcards.
- Deliver a suite of specified volunteer recruitment and retention activities as detailed in the project plan.

Quarterly progress reports will be made (including a funding claim) and Project Steering Group meetings will continue.

MoorLIFE2020 Project

In 2016/17 the project will

- Continue to recruit to resource the project
- Commence capital works on site from August 2016 (delivered by MFF, NT & RSPB) following the establishment of all statutory consents and landowner permissions
- Complete all appropriate assessments
- Undertake UAV pilot training
- Complete a hydrological restoration plan
- Set up of monitoring for sphagnum reintroduction and impact of vegetation diversification
- Produce a baseline survey of Fire Operation Group on current wildfire risk and evidence base.
- Complete a single, up-to-date database of wildfire incidents across the South Pennine Moors SAC
- Develop a communications plan for implementation of all dissemination activities
- Hold a project launch event & set up the website for the project
- Install project information boards at 4 sites and at Moorland Centre in Edale.
- Install demonstration information boards installed at 4 sites
- Procure and set up the Bogtastic van

The annual updates of the five restoration trajectories created in Action A6 using direct terrestrial data measured from the demonstration sites will be carried out. Earth Observation (EO) images of demonstration site data will be plotted alongside this data to show how EO data could be used instead of direct data. Assessments of the progress of sites against our restoration trajectories will be made midway through the project and at the end of the project.

New and Unconfirmed projects

Yorkshire Water Projects

Our current contract to deliver works for Yorkshire Water Services, for the SSSI Recovery Project, ended in March 2015. Much of this work is being carried forward through Asset Management Plan 6 (AMP 6) by the MoorLIFE 2020 Project, while we are in discussion with YWS regarding those sites outside the MoorLIFE 2020 area and we hope to take a full role in assisting YWS to carry out its responsibilities on these sites.

Programme Management - 2016/17

Table 1: Core and Project Funding 2016/17

Contracted/approved	Core funding £	Core funding from projects £	Total core funding £
Operational Partners			
PDNPA	88,000		88,000
Environment Agency	60,000		60,000
Pennine Prospects	2,000		2,000
RSPB	7,500		7,500
Severn Trent	15,000		15,000
United Utilities	15,000		15,000
Yorkshire Water	15,000		15,000
Sub total	202,500	0	202,500
Project Partners			
EU LIFE		23,750	23,750
HLF		4,500	4,500
Sub total	0	28,250	28,250
Total	202,500	28,250	230,750

Pipeline	Core funding £	Core funding from projects £	Total core funding £
Operational Partners			
Derbyshire CC	20,000		20,000
National Trust	15,000		15,000
Sub total	35,000	0	35,000
Project Partners			
Natural England		15,000	15,000
Sub total	0	15,000	15,000
Total	35,000	15,000	50,000

Our establishment costs are c.£275,000 - to support a core team of 4.6 permanent staff with additional technical, research and administration staff assistance (approximately 1wte) where required.

The Core team:

Partnership Manager - Chris Dean

Communication Programme Manager – vacancy (Debra Wilson interim)

Programme Manager – Conservation Land Management - Matt Buckler

Programme Office Manager – Sharon Davison

Science Programme Manager – Jonathan Walker

The core team covers

- Business development and leadership
- Advocacy and opportunity creation

- Providing expert advice, techniques and methodologies on topic areas which Moors for the Future Partnership has developed
- Programme management and logistics
- Communications and website development
- Staff management, recruitment and induction
- Trouble shooting and emergency cover
- Financial monitoring and management
- Setting and monitoring protocols

Reports and claims continue to be made for the Community Science Project and Private Lands Portfolio.

Table 2: Projects 2016/17

Projects contracted/approved	ARP Minute Reference	Anticipated gross expenditure of project work 2016/17 £	Funders
Burbage Brook	RMT 26/15	2,500	EA, NE
Clough Woodland	40/14	42,750	EA, NT, WT
Community Science	39/14	215,900	HLF, EA, NE, NT, STW, UU, YWS
Private Lands	48/13	3,291,278	NE
MoorLIFE 2020	38/15	2,030,600	PDNPA, EU LIFE, STW, UU, YWS, NT, PP, RSPB
Sub total		5,583,028	
Pipeline – subject to relevant approval			
Transitional Funding		75,000	HLF +
YWSSSI Recovery?	RMT 22/15		
Sub total		75,000	
Total		75,000	

Partners (abbreviations where used):

PDNPA	Peak District National Park
EU LIFE	European Commission - Environment - LIFE Programme
EA	Environment Agency
HLF	Heritage Lottery Fund
NE	Natural England
NT	National Trust
PP	Pennine Prospects
STW	Severn Trent Water
UU	United Utilities
WT	Woodland Trust
YWS	Yorkshire Water Services

Project Teams

In the previous year many staff had their contracts renewed several times on a short term basis which was unavoidable until certainty of funding was in place. Whilst this was undesirable, we did manage to retain the skills and experience that the team has developed over the past few years.

Recruitment will take place as appropriate for project delivery in accordance with programme planning and approval.

Advocacy and events

The team will continue to represent the Moors for the Future Partnership and its interests at a wide range of relevant regional, national and international meetings and initiatives and disseminate our scientific findings generated from our research and monitoring programme to best evidence future land management initiatives and best practice.

Training and Development

The Moors for the Future Partnership is a learning organisation which is pioneering innovation in the science of moorland remediation and management. We will continue to develop the skills and capability of our staff as identified in the annual learning and development plans.

The programme team will review MFFP strategic business documents (including this operational plan) to reflect stakeholder needs and the new vision and strategy.

5 Risk Assessment

Programme Management risks are monitored on a quarterly basis. Any changes in risk will be identified to PDNPA (as lead partner) and significant risks highlighted on the Directorate and/or Corporate Risk Register. Strategic Management Group will be advised. In addition, individual project issues are identified on the Programme Progress Log and reviewed at our monthly project management meetings.

Description of Risk	Impact on Programme	Impact (I)	Probability (P)	Risk Rating	Mitigating Actions
Long term staff sickness	Programme management and delivery affected	2	2	4	Staff trained and appropriate skills base to backfill.
Staff recruitment / retention	Programme management and delivery affected	2	3	6	Adequate project support particularly during final months of projects.
IT – inadequate server back up	Business continuity adversely affected. Loss of historic data	3	2	6	Fit for purpose back up system installed during 2014 – connectivity improvements being investigated (Nov 15)
Insufficient / inadequate accommodation	Loss of time dedicated to programme management / delivery	2	3	6	Monitor workspace management. Action on accommodation is currently underway.
Failure to plan resources for multiple projects	Project(s) fail to meet delivery objectives	3	1	3	Gateway approval process and project management toolkit in place. Monitoring and communication in conjunction with work planning across portfolio. Issues identified, support put in place.
Lack of PDNPA Committee Support	Approval for projects (pre-project set up work time wasted)	3	1	3	Strong lines of communication with Members. Identify Champion(s). RMT 'pre Committee' process adds robustness.
Failure to maintain core income	Programme management affected. Bidding for future work and funding impacted	3	1	3	Funding opportunities with strategic focus identified and followed up as appropriate. Reduce hours/redundancy of core team. Financial contingency in place.
Failure to obtain funding	Programme delivery affected	3	1	3	Adapt projects/programme to deliver within resources.
Failure to engage partners	Current and future projects	2	1	2	Robust Action Plan; active engagement, communication and awareness raising

Formula used for assessing Risk Rating

Impact		Probability	
1	Insignificant / Negligible	1	Very Unlikely / Rare
2	Moderate	2	Possible
3	Critical / Catastrophic	3	Almost Certain

6 Look Forward – 2017/18

Commitments 2017/18

Deliver year 3 of the Community Science Project, MoorLIFE 2020 and the Private Lands Portfolio. The first (of two) mid-term report and financial claim will be made for the MoorLIFE 2020 Project. Reports and claims continue to be made for the Community Science Project and Private Lands Portfolio.

Continue to support our innovative conservation and science programmes through partnership communication vehicles and channels as well as developing campaigns at a regional, national and international level.

Identify and secure communication project and funding streams through new business and programme opportunities. We will seek and harness funds to secure and protect the legacy of the MFFP through further public and landowner engagement.

Seek and aid new partnership ventures to conserve and promote our moorland uplands.

Project Commitments 2017/18

Table 3 Core and Project Funding 2017/18

Contracted/approved	Core funding £	Core funding from projects £	Total core funding £
Operational Partners			
PDNPA	88,000		88,000
Environment Agency	60,000		60,000
Pennine Prospects	2,000		2,000
RSPB	7,500		7,500
Severn Trent	15,000		15,000
United Utilities	15,000		15,000
Yorkshire Water	15,000		15,000
Sub total	202,500	0	202,500
Project Partners			
HLF		4,500	4,500
Natural England		18,000	18,000
Sub total	0	22,500	22,500
Total	202,500	22,500	225,000

Pipeline	Core funding £	Core funding from projects £	Total core funding £
Operational Partners			
PDNPA			
Derbyshire CC	20,000		20,000
Sub total	20,000	0	20,000
Project Partners			
National Trust	15,000	0	15,000
Sub total	15,000	0	15,000
Total	35,000	0	35,000

Table 4: Projects 2017/18

Projects contracted/ approved	ARP Minute Reference	Anticipated gross expenditure of project work 2017/18 £	Funders
Community Science	39/14	203,707	HLF, EA, NE, NT, STW, UU, YWS
Private Lands	48/13, 38/14	1,276,926	NE
Clough Woodland	40/14	15,000	EA
MoorLIFE 2020	38/15	3,519,663	PDNPA, EU Life, STW, UU, YWS, NT, PP, RSPB
Pipeline – subject to relevant approval			
Clough Woodland	40/14	40,000	NT, WT, EA
Total		5,055,296	

7 Look forward - Business Development (Expectations)

We will continue to develop relationships with new partners and will use the methods agreed in the Partnership's Business Plan to achieve a balanced budget.

Core Funding

We will continue to engage with core funding partners to establish new Statements of Intent and negotiate core funds / membership fees into the future. In addition the methods laid out in the Business Plan will be implemented to ensure all projects are fully cost recovery and contribute at an appropriate level to fund the core support requirements.

Funds will be sought to develop the general infrastructure of the MFFP team, bidding for funds to improve processes and systems of work and infrastructure. This is required to fully expand the capabilities of the team to undertake extensive programmes of work. During 16/17 we will be pursuing a HLF Transition fund bid for this purpose.

Allocating resource to business development is crucial to ensuring we are continually aware of funding opportunities, always have a bidding action in development and always have a pipeline of priorities for funding opportunities within the Operational Plan. Experience has shown that opportunities to develop new projects and bid for new funds arise during the year requiring constant vigilance and a quick response to opportunities which will deliver our vision, aims and objectives.

The team will continue to keep funding opportunities under constant review and will explore all of those which have strong possibilities for funding the Partnership's objectives.

Subsequent Operational Plans agreed by ARP Committee since 2013/14 have proposed bidding to HLF (eg Landscape Partnerships, Heritage Grants). Now having the successful result of the MoorLIFE 2020 bidding, this could provide match funding to set against another large bid and this will be explored during 2016/17. Likely business development work during 2016/17 will be;

- Assisting Defra with an Integrated LIFE Programme bid
- Various catchment based projects in those catchments which are known to be at risk of causing downstream flooding (e.g. Upper Calder, Trawden, Glossop)
- Opportunities for PES (Paying for Ecosystem Services) and using the Peatland Carbon Code to realise new income streams
- Making use of ML2020 as a match fund for further bidding
- Bidding and delivering (if successful) HLF Transition fund project "Moor Business"
- Developing further opportunities for all the projects currently being delivered
- Maintaining capacity to rapidly respond to an emerging business opportunity

The aim of the planning is to identify options and costs and develop proposals / bids or continuing our evidence programme of the impact of restoration and land management activities; this is important as many of the biodiversity and ecosystem service benefits will take many years to realise.

8 Monitoring this Operational Plan

We produce a Programme Progress Log four times a year which identifies approvals and financial values of projects - with risks identified through a Red/Amber/Green assessment - and includes brief summaries of progress highlights. Income and Expenditure of the programme team are also monitored by the Partnership's Strategic Management Group at its meetings.

We update our funding approval records on a monthly basis to take account of the need of probity of the approvals processes of our accountable body, the Peak District National Park Authority.

Reports on individual projects are presented to those individual project steering groups and an overview of the programme finances is undertaken by the Peak District National Park Authority