

Case Study

Pump it up: Chalk grassland restoration

Background

The South Downs National Park (SDNP) is home to rare chalk grassland, an exceptionally important habitat type that is sadly in decline.

Chalk grassland is established over time, originating from forest clearance in the Neolithic and Bronze age times, and maintained through cattle or sheep grazing.

It supports an incredibly important ecosystem and is home to many rare species of flora and fauna including Autumn lady's-tresses and early spider orchids, along with 29 species of butterfly.

As this important habitat covers just 4 per cent of the National Park's area, it is imperative that the chalk grassland in existence is maintained in good condition.

Two chalk grassland sites in the Eastern Downs – Cow Down (a designated Local Wildlife Site owned by the National Trust) and Donkey Hollow (a designated Site of Special Scientific Interest (SSSI) owned by Eastbourne Borough Council) were in poor condition. Grazing needed to be established on both sites to suppress the invasive tor grass and encroaching scrub.

Both sites are located at the top of a hill, with no water source, therefore, a mechanism to provide water on site was required. This would allow for the introduction of cattle which require a large amount of water.

The SDNPA partnered with the landowners, and the tenant farmer of Donkey Hollow, to provide funding for the works to be designed and installed on both sites.



SDNPA Eastern Downs Lead Ranger Phillippa Morrison Price, with the newly installed water trough at Cow Down, standing with Dan Fagan, Lead Ranger at The National Trust, Devil's Dyke Estate.

The project

The approach to providing water on both sites was different. After further investigation, it became apparent that water could be provided at Donkey Hollow, by adapting the existing trough/water pipe network on an adjacent site.

At Cow Down, water had to be pumped up the hill from the existing supply at the bottom – 83m / 272ft. This involved the installation of a pump and pump house at the base of the hill, narrow trenching to house the water pipe, and then holding tanks and water troughs positioned in suitable locations at the top of the hill. Contractors with extensive experience in this field carried out this work.

The original project time line was delayed due to the length of time it took to establish legal agreements between all parties. This is a lesson learned for future projects of this type and suitable time must be allocated to accommodate this within the project time frame.

The estimated cost for each site to purchase and install the infrastructure required was originally around £25,000 per site (£50,000 in total). However, actual spend was a lot less due to savings made at Donkey Hollow. This part of the project cost the South Downs National Park Authority (SDNPA) £5,814.36 in addition to contributions from Eastbourne Borough Council and the Rural Payments Agency. In total, the SDNPA contributed a total of £18,299.36 towards this project.

“With the help of our very capable contractors, great care has been taken to trench a new water line to ‘Donkey Hollow’; a part of the farm which was not previously supplied with an adequate volume of water to support the grazing of cattle.

The ‘Pump it up Project’ has now enabled us to manage the grazing area with both sheep and cattle. Utilising both of these species for grazing aims to maintain and increase this area of quality chalk grassland. We are very grateful for the permissions granted and for the funding of this project by Eastbourne Borough Council, SDNPA and the Rural Payments Agency.”

Henry Brown, Farmer at Donkey Hollow

The outcome

The infrastructure was successfully installed and cattle are now grazing on both sites. The sites will be closely monitored over the next five years to ensure that flourishing key species are established and that the overall condition of the chalk grassland habitat improves to a good standard.

Monitoring methods will include fixed point photography, aerial footage and Integrated Site Assessments (ISA). ISA’s are Natural England’s site surveys and assessments that examine the condition of Sites of Special Scientific Interest (SSSIs) and the effectiveness of Higher Level Stewardship (HLS) agreements using the Integrated Site Assessment Tool (ISAT).

Another significant outcome of this project is the building and cementing of close working relationships with key partners and with local farmers. Working in collaboration provides funding and resource for important projects. It also encourages the sharing of expertise and experience which can, in turn, be passed on to colleagues and other key stakeholders.

The future

Designing and installing the water pumping mechanism has given us valuable experience which will enable the SDNPA to advise and support similar projects across the National Park.

Innovation is essential to maintaining the special characteristics of the National Park. Piloting new schemes and ideas are important to generate widespread learning that can be shared with others.

This project has initiated interest from other sites who are looking to replicate similar mechanisms on their own land, potentially preserving our special chalk grassland habitat for centuries to come.

For further information on this project, please contact

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Lead Ranger – Eastern Downs, SDNPA



The South Downs National Park Partnership Management Plan (PMP)

2020–25 The Partnership Management Plan 2020-2025 brings together and coordinates the aspirations of many different partners who help contribute towards the purposes for which it was designated.

This project successfully achieved the following PMP outcomes:

Outcome 1: The landscape character of the South Downs, its special qualities, natural beauty and local distinctiveness have been conserved and enhanced by avoiding or mitigating the negative impacts of development and cumulative change.

Outcome 3.1: To create, restore and improve areas of priority habitat to be more, bigger, better, and joined up at a landscape scale.

<https://www.southdowns.gov.uk/partnership-management-plan/>

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