

Case Study

Peppering Dew Ponds

Background

Dew ponds were historically created across the South Downs as a source of water for sheep in an otherwise dry, chalky landscape. As well as being part of the historic and cultural heritage of the area, they are a small wetland oasis for wildlife, providing drinking and bathing water for birds, a breeding site for amphibians, frogs, toads, newts, a home for dragonflies and other aquatic invertebrates and plants.

Changes in farming practices, together with the increase of cattle troughs and piped water, have led to a decline in the numbers of dew ponds with many being lost or no longer holding water.

Over recent years the South Downs National Park Authority (SDNPA) Central Downs Ranger team have worked with the Norfolk Estate to restore dew ponds on an Estate owned and managed farmland at Peppering, near Burpham, north of Arundel. This fits in well with the remarkable results they have already achieved in reversing the decline of farmland biodiversity in the Peppering project area.

The value of ponds is much enhanced where there is a pond network which act as stepping stones, allowing species to move through the landscape. Restoration of this particular dewpond will mean there are four fully functioning dewponds in the Peppering area with another nearby on adjacent farmland.

Whilst small clean water ponds, such as dewponds, can be exceptionally rich (providing refuge for over two thirds of Britain's rarest freshwater wetland invertebrates) the charity 'Pond Conservation' estimates that around 90% of our lowland water bodies are degraded.

Assistant Ranger, Oliver Seal, laying the hedgerow one month after the dew pond restoration



The project

The biodiversity benefits of small ponds can be exceptional and the Norfolk Estate have seen this first hand at both of the two dewponds restored by them and the SDNPA Central Downs ranger team in recent years. Because of this, they were keen to restore other dewponds in the Peppering project area and approached the SDNPA to ask for assistance.

Dewpond restoration is expensive as it involves:

- 1) excavation work
- 2) installing a liner
- 3) Bringing in clay to overlay the liner

In addition to cost, the remoteness of many pond locations can be a barrier to restoration and, as a result, few dewponds are re-established.

It was decided that the cost of restoration would be shared with SDNPA and the Norfolk Estate both contributing £8,500 towards the £17,000 total project cost.

In addition to their financial contribution, the Estate has taken land out of production to incorporate the pond and a ten metre margin around it, sowing a wildflower/pollinator seed mix to both buffer the pond and further enhance its value to wildlife.

To enable walkers and riders to enjoy the dewpond a 20 metre section of hedgerow has been laid in the 'South of England' style to make it clearly visible from the nearby public bridleway.

“Restoring dewponds here at Peppering has proved to be one of the most successful ways of attracting wildlife to the area. Now we have completed this one with help from the SDNPA there are others in the area that I would also love to restore.”

Charlie Mellor, Norfolk Estate

The outcome

The outcome is another clean water dewpond that will benefit wildlife and add to the network of dewponds in the area. This restoration work aligns with our principle to create, restore and improve priority habitats to be bigger, better and more joined up at a landscape scale.

This pond is sited in its original historic location providing a direct link with the farming history of the South Downs National Park. Walkers and riders can enjoy it from the nearby bridleway and the existing fence and newly laid section of hedge means wildlife will not be disturbed by passers-by or by dogs running in to the dewpond.

This work was enhanced by the outstanding commitment of volunteer, David Rivières, who produced an excellent dewpond survey covering East and West Sussex within the South Downs National Park. As well as providing useful information and recommendations regarding dew ponds in general, his report also confirmed that historically there had been a dewpond in this location.

The section of hedgerow that has been laid in front of the dewpond would, under usual circumstances, have been undertaken by the South Downs Volunteer Ranger Service (SDVRS) but pandemic restrictions meant this was carried out by SDNPA Central Downs Ranger instead. There is potential for volunteers to get involved with surveying and monitoring all the dewponds in the Peppering project area.

The future

Restoration/creation of small clean water ponds is a guaranteed way of increasing biodiversity in any area and the Central Downs Ranger team will actively look at opportunities to restore /create more ponds in the future, exploring all options to help fund the work required.

The cost of dewpond restoration is expensive. However, where a good working relationship exists and costs are shared it makes projects like this one more feasible.

Warmer weather in recent years has led to more dewponds drying out. This may only worsen if the impact of climate change occurs as anticipated.

In this case it was decided to dig the dewpond deeper than previous ones to help guard against this. In any event, within any area it is good to maximise diversity by having ponds of different depths, some shallow and some deep.

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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 1.1 Protect Landscape Character

Outcome 2.1 Improve Soil and Water

Outcome 3.1 Join Up Habitats

Outcome 4.1 Conserve Heritage

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