

Sussex River Restoration at Knepp Castle

Written by Ian Hayes

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Important river restoration at Knepp Castle

Restoring a river system that has been engineered and canalised two hundred years previously is nothing if not ambitious. However, many things undertaken by our predecessors in the name of progress have not unfortunately proven themselves to be sustainable. Early mapping of the upper river Adur on the Knepp Castle Estate in West Sussex established that the river had been straightened in the early nineteenth century. Ever since it had been deepened and the floodplain drained for agriculture until really the two were disconnected. The river flash flooded dramatically two or three times each year and drained just as quickly and was also completely lacking in that iconic water-meadow biodiversity.

From an agricultural point of view the 70 acres of floodplain running through the estate was long, thin, expensive to fence and of limited value. Even when the estate had a fully functioning agricultural enterprise, it was not obvious what to do with the floodplain and latterly it tended to be grazed by horses prior to the land being entered into a parkland restoration project in 2005.

But it was major flooding in the early part of the last decade that encouraged the estate to persuade the EA to consider renaturalising the system. The estate argued that as an alternative to pouring more concrete to alleviate flooding downstream, the EA should pay farmers to hold up water upstream by renaturalising the river system. The results would be good for flood defence, water quality and migratory fish. In addition the landowner would have the benefit of enhanced biodiversity and at the time higher Countryside Stewardship payments. The EA was pleased to find a landowner willing to undertake a project that coincided with its own aspirations.

The River Restoration Centre came up with the early concepts and the project was then put to engineers Royal Haskoning to model and design. Natural England has funded 90% of the £250k project and the estate will fund the balance with the EA Operations team doing the work.

The scheme was the inspiration of the owner Sir Charles Burrell and his Savills agent Jason Emrich and it has had non stop support from the EA team and Natural England. However there

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have been obstacles, such as raised water levels wetting up a public right of way, lengthy Environmental Impact Assessments, funding difficulties, and planning consent.

"This has certainly proved complicated and time consuming but it's something that we wanted to do and we are delighted that it has become a reality." says Jason Emrich

He continues, "However long the project has taken to get underway, it is nevertheless hugely exciting that it has finally started. The river cuts through an estate that is subject to a ground breaking re-wilding project supported by HLS and naturalising the river system will ensure that the floodplain is once again working with its river system. The EA will of course continue to be obliged to manage flood defences downstream to protect the homes built in the river's floodplain, but the Knepp Estate hopes that its project will help mitigate its long term commitment to flood defences and will encourage other landowners to look to see what can be done for their downstream neighbours.

Charlie Smith of the Environment Agency said: "By working with nature, this part of the River Adur will become far richer in wildlife and much more interesting for people to enjoy. The variations in the shape and depth of the river channel will create habitats which will encourage different kinds of wildlife to make their homes there. Reconnecting the river with its natural floodplain will mean that new wetlands will help soak up water when river levels are high, which is good news for wildlife and the local community in reducing flood risk to the area."