

## Case Study

# White Lion Dew Pond

### Background

As part of our NIA project local Ranger, Jan Knowlson was researching areas to improve chalk grassland. Whilst looking at areas of access land that needed scrub clearance work on Beddingham Hill, Jan followed up a reference to a pond that was marked on the OS Map. The path to it was very overgrown and the pond itself hadn't held water for a long time. It was an old concrete pond that must have cracked a long time ago, grass and trees were growing on the surface.

Many of the Dew ponds East of the Ouse Valley were concreted in the Victorian era. This creates additional challenges to restoration.

The pond has the potential to make a fantastic area for wildlife if restored, as there are no other functioning ponds for quite a distance in this area. In addition it is very close to the South Downs Way. It was decided to see if we could restore the pond. Staff and volunteers would be clearing scrub in the area, so a little extra time spent on the pond would be worth it.



### The project

Jan contacted the farmer and Glynde Estate who are the landowners, who were both very interested in the restoration of the pond. Initial quotes for the work to dig out the concrete, re-shape and line it came back at over £20k. This was way beyond our budget and any contribution from the estate and therefore would potentially require a Heritage Lottery Fund application. In addition the farmer was concerned about having a clay pond put in, as liver fluke - a parasite that affects sheep and cattle - can be a problem in muddy water. So it was agreed to experiment with the repair of the concrete instead.

The next task is to work out how to repair the concrete without poisoning the water and with something that will not crack again in the near future. Concrete can be sprayed over concrete but this will potentially end up with a cracked pond again. A sealant that expands and contracts with the varying water levels and temperature was the preferred option. The volunteers worked very hard, spending 2 days clearing the channels to the pond and another day clearing the pond itself. Once the concrete was cleared we used an angle grinder to clear out the cracks and apply the sealant. The sealant is quite expensive, so we applied 2 tins to start with and waited for rain in a few days time.

---

## The outcome

Jan had never repaired a concrete pond before so wasn't sure the sealant option would work, as it was applied to seal the cracks it looked too runny to be effective. Returning to the pond around a month later, after considerable rainfall, the hope was that the section of the pond we had repaired would be holding water at least.

It was a pleasant surprise to find that the pond was brimming with water!

So after spending £200 and about 3 days of volunteer work, we had repaired a pond for a very small percentage of the original estimated cost.

As you can see from the photo below, the pond is now a fantastic feature in the landscape and will hopefully become a valuable resource for the wildlife. The cattle and sheep belonging to the farmer will now be able to use it as well.

Working with the farmer to get the desired result in a way that they are happy with is an important part of how we work. Usually we would restore a pond back to a clay and butyl liner as they look more natural but the farmer's preference was to keep the concrete, meaning we had to think outside the box this time.

Nick Jones, the Estate Manager from Glynde Estates, was impressed with the before and after pictures and said "What a difference, you forget how it was before!"



## The future

The pond will be monitored to check that the water levels hold up and if required, more sealant can be added in future years. The area will be surveyed to monitor aquatic species as they recolonize.

One of our volunteers is a keen dragonfly enthusiast and has expressed an interest in surveying in the future. It is great when volunteers are involved in the before, during, and after, and we hope for positive results.

The repair of the pond coming in at £200 instead of over £20,000 is great value for money as well as a very rewarding result on the ground. This makes concrete pond restoration much easier to do on a small budget than had previously been thought.

Now that we have done a trial run of concrete pond repair, there are a few more in the area we could fix in the future, if funding and time allow, so watch this space.

Jan Knowlson  
Ranger - Eastern Downs  
SDNPA

December 2014