How was the moat restored?

The moat was restored by digging out the silt and dead plant remains that had gradually built up over the past 40 years. A large excavating machine was used to do the digging and big tracked dumpers transported the silt that was removed to the rout yard where it was spread inside the rectangular earthwork there.

Removing all this material was a major undertaking which took nearly a week to complete. However, because the castle is such an important site the work had to be very carefully planned to avoid damaging either the archaeology or the wildlife that is there, and special permission had to be obtained before it could be carried out.

Looking after the archaeology

First of all we had to make sure that we only dug the modern silt out of the moat and did not damage any archaeology that was there. In order to find out how deep we could safely go we carried out an auger survey. This involved pushing a long narrow tube down into the ground (rather like coring an apple) to cut a cylinder-shaped core through all the different layers that had built up in the moat over time. We did this at measured points in a number of straight lines (transects) across the moat.

By studying the cores that were removed we could tell how deep the modern silting was and make sure that we did not dig down beyond this. However, because the cores went right down to what had been the bottom of the medieval moat they gave us information about the older layers beneath the material that was being excavated. You can find out about what we discovered in the Looking at the Archaeology section.
While the desilting work was being carried out an archaeologist had to be present all the time, and special ground protection had to be put in place in some vulnerable areas to avoid the ground being damaged by the earth moving machinery that was being used.

Looking after the great crested newts

The great crested newts that live on the site are quite rare and are a protected species. A great crested newt survey was a requirement of the project. We had to make sure that no newts were going to be harmed while the work was going on. To do this we had to fit in with how they live (their life cycle). To find out more about great crested newts, their life cycle and the newt survey see the section called Looking at the Wildlife.

We had to wait until the autumn to dig the silt out of the moat so that the newts and their young had all left the water. Even so, they were still living nearby in the long grass around the site, and we therefore had to be careful that none of them got squashed by the machinery as it moved around the site.

All the areas where vehicles were going to be travelling were carefully searched for newts, and any that were found were moved out of the way to safety. The grass was then cut short with a strimmer to put them off coming back. All the time that the work was going on a close watch was kept by an ecologist to make sure that none of them were hurt.