

PROJECT WATER LINER INSTALLATION



We were recently asked to inspect a reservoir that required some minor remedial works, including repairs to the exposed roof joint, however substantial ingress through the floor slabs and the adjacent redundant tank was quickly identified.

Initial plans were to pump out and transport the remaining water, however, the site was an SSSI site (Sites of Special Scientific Interest), and so we were unable to discharge the water onto the adjacent land or tanker the water away. The solution was to pump the water into the redundant tank.

While pumping the water into the adjacent cell, the water was filtering straight back into the live cell and water was also ingressing through the floor due to the high water table. It was calculated that we were pumping out in excess of 15,000 litres of water throughout the course of a week.

Due to the level of water ingress, the traditional methods of refurbishment were not suitable, so we were required to find an alternative solution. It was decided that an internal DWI approved liner would be the most appropriate method to overcome the extreme ingress.

Prior to the liner installation, works began to minimise the levels of ingress with the use of WRAS approved resin injections. The resin was injected either side of the joints and immediately formed a flexible foam when contact was made with the water. This successful method was carried out on all of the floor and wall joints in both the live and redundant cells.

On completion of the resin injections, DWI approved, cementitious fillets were applied to remove any 90° angles inside the reservoir. Sharp protrusions identified on the floor and walls of the tank were also removed to ensure the liner would not be damaged during installation.

The liner was installed in sections and weld sealed to secure, once complete the liner was third-party tested to ensure a water-tight finish. The team onsite were joined by our 'Technical & Quality Managers' to ensure the tank was cleaned down to the correct standard.