



Stonbury completed masonry repairs to three bio-filter beds in the South of England. The works took place in sequence to allow the bio-filters to remain in service for the twenty-week construction program duration.

The repairs were required to extend the life of the filter tanks which had become damaged over time by tree roots, vegetation and the elements. The existing brickwork had begun to crumble, and at the lower levels of the filter beds, the mortar joints had started to leak.

Initial works included a pressure wash clean and the removal of roots and vegetation, which had penetrated the brickwork in some areas. An inspection was then carried out to allow the team to identify hidden cracks and additional leaks within the walls.

The client requested that the filter beds remain online as much as possible to ensure the media did not dry out and to keep any changes in bacteria within the beds to a minimum. Working live also prevented the beds that were not being worked on from becoming overwhelmed.

It was agreed that the flows could be stopped for up to four hours per day, with one-hour breaks in between to keep the media wet. This allowed the team to work in sections by raking the media back to the required depth and creating an open working area.

The coping stones were then removed from each twelve meter section, and the brickwork was demolished by hand to the required depth. The walls were re-built – re-using existing bricks where possible – and the coping stones were laid around the top of the wall. The chamfer was also removed in specific locations and re-laid.

Once all the brickwork was reinstated, repointing, stitching and overbanding were carried out to ensure a watertight finish.