

Line of Works – Bristol

The line of works was carried out by MDA over the course of 2012/2013 for Bristol Water. The Victorian aqueduct has been carrying untreated water from the source of the River Chew at Chewton Mendip to the reservoirs and water treatment facility at Barrow Gurney since it was constructed during the 1840's. This was one of Bristol Water's first structures to supply fresh drinking water to the city of Bristol.

The works completed on this scheme were the rehabilitation of the aqueduct using an in house technique which was a composite design after trials showed that GRP was not a viable option for all of the works. We combined this technique with concrete spray lining and grouting of the existing tunnels where necessary. All of these techniques enhanced the asset structurally and improved its water carrying performance as well as extending its functional life span.



The method of installing GRP liners could be used where the cross section of the aqueduct did not vary too much over a long section. A shaft would be installed to gain access to the aqueduct where MDA confined space specialist operatives would install the liner into position. A typical shaft can be seen in the photo below.



Where the cross section of the aqueduct varied greatly, the GRP liners could not be installed therefore MDA used a combined of traditional concrete spray lining with the installation of HDPE half channels to give better flow characteristics. Photos of this method can be seen below.

