



BLENHEIM CASCADE WORKS

On behalf of Blenheim Palace, Land & Water completed essential cascade works to the lakes at the World Heritage Site as part of a wider restoration project which aimed to future proof the grounds for years to come. This project was completed during the COVID-19 pandemic with the necessary safety measures being put in place.

Project Delivery

- The compound area was established to Land & Water's Safety First Standard with Heras fencing to the perimeter. A haul road consisting of approximately 200m was introduced which included lay-by passing areas around the site to protect the historic landscape.
- Temporary dam systems were established at the upstream and downstream ends of the cascade apron to assist with the lowering of the Great Lake to 1m below crest to facilitate works. Inspection of the existing apron structures, and joints, then took place, leading to the commencement of cleaning using pressure washers.
- The wing walls were carefully dismantled both by hand and mechanically, using an experienced Land & Water Operator in a long reach excavator.
- Stone was retained for re-use by the client and stone samples for inclusion in the permanent works were sourced to match the existing detail.
- Breakout, removal and disposal of the existing apron slab, weir wall and wall foundations was achieved using a 8t long reach excavator fitted with a hydraulic breaker positioned to the side of the weir and working in the apron field. Material was removed using dumpers with all concrete being removed from the site. Voids identified at inspection beneath the apron were filled with foamed concrete.
- A resin injection cut off wall, the largest undertaken in the UK to date, was installed running the full width of the dam. This was followed by the construction of a new reinforced concrete apron slab, including a weir upstand containing 375m³ of concrete in total. Repairs to the upper section of the apron then took place. The completed concrete walls were faced with a natural stone cladding approved by the client.
- Backfilling to the rear of the wing walls and replacement of the Armourloc[®] was undertaken with repairs to the existing wave wall using previously won site material which was cleaned and prepared.

Find us on the internet at
www.land-water.co.uk

Contact us on 0844 225 1958



Project Particulars

- Client: Blenheim Palace
- June - December 2020



PROJECT
VALUE: **£680,000**