

## BLENHEIM PALACE LAKE RESTORATION

In 2019 Land & Water Services Ltd tendered for a major restoration project which aimed to future-proof the grounds of the World Heritage Site at Blenheim Palace, Oxford for years to come.

Decades of silt build up in Queen's Pool needed to be removed to prevent this UNESCO World Heritage Site from losing its SSSI status by becoming eutrophic, drying out completely and becoming lost. The scope of works was to remove circa 300,000m<sup>3</sup> (believed to be the largest inland dredging project in the UK) from the lake bed which in some areas was down to less than 30cm in depth. In addition, we carried out marginal planting to significantly improve water quality in the lake.

The Dredging programme was 40 weeks commencing in June 2022 using a bespoke set up of standard excavators with large digging buckets on pontoon platforms. The machines used for the dig were working to GPS guidance systems to ensure accuracy and placement of spoil into brand new hoppers built specifically for the project. Material was then transferred to a temporary offloading point and into awaiting A25 Dumper trucks fitted with greedy boards. Land & Water managed to achieve the loading of 227 trucks, transferred and tipped the material during one shift - this was a record for the business.

A 300m temporary haul road was created to transport the lake material across the Estate to the deposition site. Cells were constructed to permit the wet material to be placed and allowed to dry out.

The tender required the lake to be fully drained in order to access the silt. It was also ostensibly to restore the lakebed to the original Capability Brown design in the late 1700's. Using our knowledge of dredging and the conditions that a dewatered dredge would create within this public amenity park, Land & Water and the client jointly elected to undertake a wet dredge using floating equipment specifically built for the project to minimise the impact on the Estate and its wildlife.

From the very outset Land & Water put forward an alternative method to dredge the lake and elected with the client to run the whole project on HVO fuels to reduce the carbon footprint.



### Project Particulars

Client: Blenheim Palace - Estates  
June 2022 - August 2023



PROJECT  
VALUE: **£4.9M**