SUMMARY OF EXPERIENCE

With over 50 years of experience in civil engineering and construction, the Company has developed its expertise in specialised solutions for water related projects.

Our involvement in watercourse maintenance and restoration sector dates back to when the company was formed over 30 years ago. One of our regular Clients needed a machine that could carry out some watercourse restoration works, and we converted our first machine to long reach configuration to do the job. We learned quickly and developed our expertise into providing solutions for our Clients, understanding legislation, the importance of managing the work, considering the safety and environmental risks associated with water. We now have one of the largest fleets of long reach excavators in the UK, complimented with floating plant and equipment for work on water, with a workforce experienced in working on high profile sites with heritage and environmental importance.

AWARDS

The Company strives to deliver at the highest level and in doing so has been recognised through many awards. In 2022 it won both the Sustainability and Overall Project Award categories at the regional Institution of Civil Engineers (ICE) Awards for the '*BogLIFE*' project, the largest bog edge habitat restoration scheme of its kind in the UK. Following the success in winning the ICE 'Peoples Choice' Award in 2021 for its work at the National Botanic Garden of Wales, the largest landscape restoration in Wales for a generation; the company was also shortlisted for the same prestigious award (one of six projects worldwide) in 2022 for BogLIFE.

In 2019 our Director, Damian McGettrick, received a special award from the ICE for his efforts over 20 years and the recognition for commitment to the industry and working with the younger generation to inspire and mentor others. Our engineering innovation and community engagement was recognised in further awards together with achievements in the safe and effective delivery of heritage and environmental restoration projects, with awards including:

(i) ICE West Midlands Awards 2022 – Regional Overall Civil Engineering Project
(ii) ICE People's Choice Award 2022 – Shortlisted for 'BogLIFE' : Internationally recognised for best civil engineering project as voted for by the public
(iii) ICE West Midlands Awards 2022 – Sustainability Award Winner
(iv) ICE People's Choice Award 2021 – Winner : Internationally recognised for best civil engineering project as voted for by the public
(v) ICE Wales Awards 2021 – Community Engagement Award Winner
(vi) BCIA Awards 2021 – Shortlisted for Community Engagement Initiative of Year
(vii) Marches Blue Business Sustainability Award – Water Quality Category 2020
(viii) ICE East Midlands Merit Awards 2019 – Team Achievement Award
(ix) ICE Presidential Award 2019 – Awarded to director Damian McGettrick by ICE President Andrew Wyllie CBE for his services to the region
(x) ICE Special Award 2017 – Awarded by West Midlands Chairman for business achievement and commitment to the region
(xi) ICE South West Engineering Excellence Awards 2017– Community Award Winner
(xii) ICE Engineering Excellence Awards 2013 – Sustainability & Environment Winner
(xiii) GE (Ground Engineering) Awards 2012 – Winner (Project under £1m)
(xiv) ICE West Midlands Awards 2012 – Small Project Award
(xv) GE Awards 2011 – Small Project recognised in Geotechnical Category
(xvi) ICE West Midlands Awards 2010 – Project Award Winner

These awards demonstrate our commitment to achieving excellent results through good working relationships.

Our portfolio demonstrates repeat work with many Clients including The National Trust and English Heritage, with works since 2005 up to the present day. We have worked with Wildlife & Rivers Trusts, local authorities, including Hart District Council at Fleet Pond – a SSSI and Local Nature Reserve with ongoing work that started in 2012 with a wetland creation project completed in 2021.

Detailed below is a summary of our experience, working in and around water, on sensitive environmental and ecological sites together with those of historical importance.

1. **Worfe Bridges and Wetland Enhancement – Shropshire Wildlife Trust**
   Also part of the Shropshire Wildlife Trust, Worfe on the Wildside Scheme this project involved improvements around 3 bridges, Ryton, Beckbury and Higford and wetland creation. The scope of works includes refurbishment of existing bridges including repointing of abutments, installation of new bridges, widening of ditches, installation of plastic piling to block drainage of the wetland and regrading to reconnect the flood plain. Works began July 2023 and are ongoing with expected completion by early August.

2. **Rose Garden Paths, Wightwick Manor – National Trust**
   This small scheme aimed to improve access around the Rose Garden with the installation of a 50m long path with metal edging. The path was topped with Deansett self-binding gravel. Public safety was ensured with signage and careful liaison with staff, and protection of historical features ensured with special fencing placed to protect a memorial wall during construction. The scheme was completed June 2023.

3. **Beckbury Wetland Creation – Shropshire Wildlife Trust**
   This project formed part of the Shropshire Wildlife, Worfe on the Wildside Scheme, to restore a section of the River Worfe that runs through the Apley Estate at Beckbury. This aspect of the scheme involved wetland creation through a serious of steps including: regrading to connect the berm to the flood plain, installing plastic piling to block drainage, installation of a French drain, track re-surfacing, creation of scrapes and reprofiling of channels. Many of these steps showed sensitivity to both history and the environment; with scrapes created through the original palaeolithic channel, habitat created for bee nesting and special crossing points created to allow cattle to cover the boggy ground. Works were completed May 2023.

4. **Newport Canal Bank Repairs – Telford & Wrekin Council**
   As part of Telford & Wrekin Council's Pride investment in Newport WM Longreach were tasked with tackling repairs to the 152m of eroded banks and dangerous pegs along the Newport Canal from the Edgmond basin toward the A41. In keeping with the sensitive site an environmentally friendly coir roll option was selected for the repairs. Building up some of the lower banks where water had been flowing onto footpaths was also included in the scope. Works were completed May 2023.

5. **Charlton, Tarts, and The Cloisters Pool Restorations – Telford & Wrekin Council**
   Continuing with the Great Crested Newt Conservation programme WM Longreach had to adopt varying approaches to overcome the challenges of each site. At Charlton Pool, situated adjacent to sports fields a specialist 10m long reach was employed to remove weed working from the banks. The Cloisters Pool constrained by its location in the middle of a residential site required the craning of a pontoon and excavator on to the pool where it could then carry out required clearance of weeds blocking culverts and taking over the pond. With trees surrounding multiple sides, Tarts Pond required a team approach, with a smaller 9m excavator working from a pontoon loading a hopper barge which a larger excavator could then empty from the bank, spreading the silt amongst the trees. Works were completed between March and April 2023

6. Newton Park Upper Pool Maintenance Dredge – Bath Spa University

Newton Park is the home to Bath Spa University with the campus located in grounds designed by Lancelot 'Capability' Brown and leased from the Duchy of Cornwall. With the historical nature of the site and its academic importance, we recognised the need to complete the desilting works on the Upper Pool in a sensitive and effective way, minimising the impact on the local environment. The scope of works included dredging of the Pool and creation of a silt trap to improve water quality and safeguard the main lake against excessive siltation in the future. The project team worked closely with all stakeholders to mitigate the effect of these works on the ecological and environmental aspects of the site. Works were completed April 2023.

7. Dothill Pools Dredging & Silt Storage – Telford & Wrekin Council

This project involved the dredging of the Dothill Pool and Tee Lake, part of the Dothill Nature reserve which includes wetlands and pools, historic canal sections, woodlands, grasslands and streams, with thriving bird and amphibian life and easily accessible to the public. The works involved building out the banks using Nicospan to store the dredged silt thereby reducing the need to remove material off site. This has improved water quality and enhanced the hydrology of the area with environmental impact of the works mitigated by using a specialist floating pontoon and excavator working on the lake. Works began late November 2022 and were completed by the end of March 2023.

8. Priorslee Lake Weed Cutting – Priorslee Lake Water Sports Association

The Priorslee Lake is leased by the Water Sports Association for water-based activities. Using a specialist spider excavator with floatation tyres due to the challenging access at Priorslee Lake, a reed removal campaign was carried out as part of ongoing maintenance to improve access and health of the lake. Works were completed February 2023.

9. Great Crested Newts Conservation (GCN) Programme – Telford & Wrekin Council

The award of another framework contract (renewed for a third term) for the protection and conservation of great crested newts, in January 2023, works have continued across Shropshire restoring existing ponds at Dawley Hamlets, Stirchley Grange, Langley fields and Hortonwood to increase and preserve the newt population. This year will see construction of new GCN habitat to improve the ecology and biodiversity of the area.

10. Old Coracle Shed Ironbridge – Ironbridge Coracle Trust

The works for this project were located on the bank of the River Severn, downstream of the famous Ironbridge and involved the clearance of silt that had buried the historic slipway structure over the years. This structure had been used historically by the coracle makers to carry and launch their coracles into the River Severn. The extreme challenges of accessing the riverbank required the use of a specialist spider excavator to 'climb' down from the adjacent footpath, remove material to uncover the slipway and grade the slope back to a safe gradient. This solution saved time and cost over the use of floating plant in the fast-flowing river. The Coracle Trust were seen in their coracles as part of the Commonwealth Games baton relay in the summer of 2022.

11. Dudmaston Estate 'Clearwater' Project – The National Trust

The works involved the creation of a number of settlement pools upstream of the main lakes to minimise silting of the watercourses, accessed by a new track, and piped via headwall structures. The strategy was to improve water quality and mitigate the impact of future maintenance and desilting operations. Working closely with an ecologist the project was successfully completed ahead of schedule in December 2022.

12. Martins Pond Nature Reserve, Nottingham – Lindum Group

The main pond at this site and adjoining watercourses required desilting and clearance of trees and vegetation. Access was limited and required the use of floating plant and a 'Spider' excavator to navigate the narrow watercourses entering the pond area. Working for Lindum Group on behalf of Nottingham City Council the project involved our expertise through early contractor involvement (ECI) and identified the preferred method to reduce risk and mitigate the ecological and environmental impacts. This was completed safely and ahead of programme in November 2022.

13. Crumpwood Weir Fish Pass clearance – Environment Agency

Working directly with the fisheries team, this critical piece of infrastructure to safeguard the passage of fish needed essential maintenance. Silt and vegetation had built up in the River Churnet on the approach to the fish pass, which had to be removed. Using a compact long reach excavator and tracked dumper the material was removed locally.

14. Lower Moor Farm Nature Reserve, Wetland Creation – Wiltshire Wildlife Trust

This SSSI Nature reserve is one of four contrasting reserves, with lakes, brooks, wetland scrapes, linked with ancient hedgerows, woodland and meadows. This design and build project included the creation of a new wetland area gaining the necessary consents to produce a mosaic of permanent and seasonal open water habitats. In addition to ponds and shallow scrapes, sections of the reedbed were translocated and lake island features created. Specialist low ground pressure excavators and tilting attachments were selected to allow natural contours to be excavated and GPS technology with 3D model of the design used to ensure accurate excavation of the scrapes and ponds. As a haven for wildlife and ecology, the success of the project was of key importance to the local area. Works were completed November 2022.

15. Corfield Farm River Restoration – Shropshire Wildlife Trust

The River Corve is of key importance to the local community and haven for wildlife and ecology, so these works required a sensitive approach to minimise the impact on the local environment and careful definition of the working area to reduce disruption of the public footways. Works included reprofiling to enhance the low flow capacity of the river and reduce siltation across the channel. Large woody material was secured at multiple locations to reduce the flow during high flows; and a backwater and flood bund were also constructed as part of the scope. Works were completed June 2022.

16. Redhill Ecology Park Pond Maintenance – Telford & Wrekin Council

These maintenance works required the restoration of 6 ponds at Redhill Ecology Park. The scope included vegetation removal, silt removal and some tree works, with removal of tree guards on a small section of trees. Special care had to be taken to avoid disturbing amphibian hibernation features including log piles, rubble piles and dense vegetation on some ponds while fencing repairs were required in other areas. Works were completed February 2022.

17. Dothill Canal Restoration – Telford & Wrekin Council

Working with Telford & Wrekin council as part of the Great Crested Newt Framework dredging was required to restore this former canal at local Dothill Nature Reserve. The sensitive site, known to support the protected species required sensitive working and overcoming tricky access with the site surrounded by trees and vegetation. A specialist 'spider' excavator with independent legs and floatation tyres was used, minimising tree removal required, enabling the negotiation of obstacles to enter the canal, and reducing the impact on the canal bed. With close liaison with the ecologist and Environment Agency throughout this approach allowed the necessary dredging and construction of the hibernacula to take place with the least impact to the environment. Works were completed March 2022.

18. Berrington Hall Pool Restoration – The National Trust

The lake restoration was part of a 5-year restoration project at Berrington Hall and was Lancelot 'Capability' Brown's final landscape project. Desilting was required to enhance the biological diversity of this SSSI site while improving the views of the pool and vista towards the hall. This work took account of numerous archaeological and ecological constraints; working under an ecological watching brief with regular liaison with the National Trust appointed consultant as well as programming works to avoid the disturbance of herons and other birds (at the heronry on the lake island) during the breeding season. A fish rescue was carried out as the pool was drained down. Works were completed May 2022.

19. Newton Park Lakeworks, Phase 2– Duchy of Cornwall & Bath Spa University

Working on behalf of the Duchy of Cornwall in Bath, desilting of the Upper Pool was required to improve the hydrology of the area with around 20,000m3 of silt to be transported from the lake to the upper field where it was spread and incorporated into this Capability Brown landscape. A fish rescue in advance of the works allowed relocation into another pool on estate. A range of specialist machinery was used to carry out desilting operations to overcome the soft ground and difficult access including low ground pressure excavators, tracked dumpers and amphibious machinery. Works were completed early 2022.

20. Wightwick Manor Overflow Carpark & Path Works – The National Trust

Due to increased visitor numbers and wetter weather the National Trust required enhancements to their carpark and footpath network at the grade II listed Park and Garden at Wightwick Manor, Wolverhampton. These comprised of the enhancement of the existing car park including the surfacing of the existing overflow car park to provide additional all-weather car parking and the creation of a pedestrian access; complete with associated drainage, cycle parking, street furniture and landscaping. Works were completed Dec 2021

21. Worlds End Fields Restoration (BogLIFE) – Natural England

A further scheme in the BogLIFE Marches and Mosses BogLIFE project this looked at restoring the World's End Field adjacent to the Bettisfield Moss. The fields lie with the SSSI lowland bog site. Challenges of the project included making changes to the drainage scheme constructed some 42 years previously, and therefore the drainage pattern without adversely affecting the neighbouring agricultural land or increasing flood risk to properties in the area. The scope of works included the provision of new infrastructure to control water levels and re-introduction of gravity drainage wherever possible. Flood banks around the perimeter of the land restored were also created to minimise flood risk. Phase 1 was completed November 2021 with phase 2 completed in 2022.

22. Morris Bridge Fields Whixall (BogLIFE) – Shropshire Wildlife Trust

This project was part of the Marches Mosses BogLIFE Scheme, to restore the lowland raised bog within the Fenn's, Whixall & Bettisfield Mosses and Wem Moss NNR's near Whitchurch. Shropshire Wildlife Trust (SWT) aim was to ensure that shallow surface water conditions could consistently maintained across parts of the site during the spring and summer periods providing habitat favourable for waders and wildfowl, the development of wetland vegetation and improving the carbon storage. The scope of works included: excavation a pond, using clay excavated to form bunds on the field perimeters; a stone access platform; car park works; concrete and drainage works (headwalls, pipework and receptor pools); and plastic piling to support a canal embankment. Works were completed in October 2021.

23. Brockton Weir Removal – Severn Rivers Trust

This work was carried out as part of the REAction project which aims to improve the condition of the Rea Brook through the Water Framework Directive and enhance the biodiversity. It is believed that barriers are preventing the Rea Brook achieving Good

Ecological Status by influencing the distribution of fish populations to it. The weir on the Brockton Brook is one such barrier identified. The scope of works included the removal of the existing weir to improve fish passage with the resulting material spread and used for scour protection on the banks and to fill the scour hole created at the bottom of the old weir. Works were completed October 2021.

24. Bramshot Farm Country Park Wetland Project – Hart District Council

Bramshot Farm Country Park is a Site of Alternative Natural Greenspace (SANG) created to reduce visitor impact on fragile habitats within the Thames Basin Heaths Special Protection Area in 2017. To enhance the area of habitat and visitor experience this project involves the creation of a series of new wetland ponds and improvements to the accessibility of this area through the creation of gravel footpaths and timber boardwalks and viewing platforms. The works were completed in July 2021.

25. Dudmaston Estate 'Mill Pool' Dam Repairs – The National Trust

The estate is on record since 1127 and rich in history with over 875 years in the same family. Damage from a previous flood event was identified on the outflow from the Mill Pool requiring some critical repairs. The works included construction of a new flood bund beside the spillway for improved control of water and to divert the overflow to the adjacent sluice. Additional drainage works ensured that the dam would be more robust for future storm events. Access was very restricted and used specialist long reach equipment with a temporary footpath closure for public safety. This also helped remove a fallen tree from a remote footpath next to the lake. Works were completed in June 2021.

26. Newton Park Lakeworks – Bath Spa University

Newton Park was first laid out by Capability Brown in 1761 and has been undergoing continuous restoration since 1994 by the Duchy of Cornwall and Bath Spa University. This project involved the maintenance dredging of the Upper Pool and silt trap to improve water quality and enhance the hydrology of the area. Reprofiling of the lower dam, repairs to the spillway and improved resilience with additional scour protection on the face of the dam were also completed. Paths and fishing platforms were also constructed for the local angling club. The project was finished in May 2021.

27. Bronington Manor 'BogLIFE' Drainage Project – Natural England/DEFRA

This project includes the restoration of historic bogland on the Welsh borders, part of the Marches & Mosses #BogLIFE restoration project. The scheme has involved measures to raise water levels, as well as re-route the Bronington Manor Drain with a new diversion into re-profiled existing and new ditches cut around the northern edge of Fenn's Moss. This aims to regain control of the hydrology and help the rare habitats in these historic peatbogs across the Marches Mosses regenerate into healthy functioning eco-systems. Works were completed in March 2021.

28. Newport Canal Recovery – Shropshire Wildlife Trust / Telford & Wrekin Council

Phase 2 of this project included the removal of silt from a section of the historic Newport-Norbury Canal to improve the water quality and provide ecological and environmental benefits. This section of works involved the clearance of the canal basin at Newport Wharf which dated back to 1830 and was a key link in the canal network responsible for the growth of the town of Newport in Shropshire. Works were completed in November 2020.

29. Regency Restoration Project – National Botanic of Wales

The final phase of this 3 year project, the largest of its type undertaken in Wales for a generation was completed in October 2020, against all odds. The team overcame the challenges of Covid-19 with lock down restrictions and supplier delays, extreme weather including Storms Callum, Ciara and Dennis resulting in several flood events. Despite all this the project was completed on time and within budget and shows the full extent of the restoration for all to see – this includes 6 bridges, several kilometres of new footpaths,

desilting of 3 lakes, reconstruction of 2 earth dams, 3 spillways, 2 historic cascades and over 20 acres of heathland restoration. With the size of the lakes being classified under the Reservoir Act, the team worked closely with the Reservoir Panel Engineer during the dam works. Work started in 2018. In 2021 the project won 2 special recognition awards.

30. River Mease SSSI Restoration – Trent Rivers Trust

The River Mease SSSI/SAC is designated as an exceptional example of a semi natural lowland river important for its wildlife and habitats. Due to point source and diffuse water pollution (phosphates and from historic urban development) the water quality had deteriorated significantly, reducing its ecological health and stopping the SSSI reaching its potential. The works in this scheme involved a series of river restoration and sustainable drainage interventions at 3 locations within the River Mease catchment aimed to improve the condition of river channel, water quality and enhance the riparian habitat. These interventions included: riparian fencing; bank re-profiling; woody debris and gravel introduction; creation of wetland scrapes as well as new meandering channels to connect to the surrounding wet woodland, using leaky woody barriers to slow the flow of water pushing it into the woodland. Works were completed October 2020.

31. Great Crested Newts Conservation Programme – Telford & Wrekin Council

Having secured a place on the framework for the protection and conservation of the great crested newts, this project at Granville Park in Shropshire involved the creation of 3 ponds and hibernacula, specifically designed to create habitat and increase and preserve the newt population. Works were completed in September 2020.

32. Hampton Loade Canoe Platform – Shropshire Wildlife Trust

With funding from the Canoe Foundation and working with the Shropshire Wildlife Trust improvements to the landing structure were carried out at Hampton Loade as part of larger ambitious project for a 70-mile canoe trail on the upper Severn from Welshpool to Worcestershire. The scope of works included constructing a new oak canoe platform and reprofiling the river bank to form an access pass from the carpark to the platform. Works were completed April 2020.

33. Mill Waters Dredging and Wetlands – Ashfield District Council

This forms part of a heritage lottery funded 'Mill Waters Project' aiming to promote Ashfield's visitor economy by showcasing a local heritage site and protecting wildlife in the reservoir. The scope of works has included dredging and island formation at Kingsmill Reservoir to improve wetland habitat and enhance the hydrology of the area, with strategic formation of islands around the inlet to the reservoir. This project was successfully completed by March 2020.

34. River Parrett Pioneer Dredge – Parrett Internal Drainage Board

This pioneer dredge scheme aimed to increase the conveyance of the River Parrett through dredging a 2.2km stretch Oath to Burrowbridge. The dredging works increased capacity by 20% with the removal of some 21,500m^3 of silt. Taking place in a high-status ecological area (SSSI, Ramsar and SPA), careful measures were taken to ensure protection of both ecology and water quality including: the installation of specialist hydrology survey equipment, ecology surveys and mapping of water voles with the relocation of the 'reedy fringe' that was home to a rare and protected species. This scheme was completed successfully November 2019 with additional works carried out in Summer 2020.

35. Newport Canal Recovery – Shropshire Wildlife Trust / Telford & Wrekin Council

The Newport section of the Newport-Norbury Canal was restored to water in 1966 and soon supporting a rare aquatic community and forming a high quality and much-loved green space in town. In 1986 the linear waterway of the canal and wetland margins were declared

a SSSI in recognition of this. Unfortunately, over the years the area had been in steady decline due to deteriorating water quality and loss of water depth from siltation. The Newport Recovery Project involved the sensitive dredging of sections of this canal, putting careful environment protection measures in place to minimise the impact on wildlife. This was carried out and successfully completed October 2019.

36. Weston River Restoration - Trent Rivers Trust

This river restoration scheme aimed to enhance the quality of the river by improving the shape and water flow through reprofiling and the introduction of gravel riffles along the course of the river. This was carried out across a 1.2km stretch of the River Trent near Weston and was completed successfully September 2019.

37. Wightwick Manor – National Trust

This project involved the installation of new footpaths and access improvements to this historic house and garden site, working closely with the estate team in keeping the gardens open during the works. Of particular significance was completion of the successful new external hardstanding for the plant sales area with minimal interruption. Works were completed in July 2019.

38. River Avon Fish Refuge – Environment Agency (Fisheries)

Working with the Environment Agency this project involved the construction of a new fish refuge in an existing natural depression adjacent to the River Avon. Located near the village of Wasperton, this provided a sheltered fish habitat for spawning and juvenile fish and macro invertebrates to grow. As well as enhanced floodwater storage, woody debris (root plates) were anchored within the fry refuge. Specialist permits ensured these sensitive works considered the nearby valuable marsh area.

39. River Leam Fishing Platform – Environment Agency (Fisheries)

This project involved the creation of a new fishing platform to enhance the local leisure amenities on a stretch of the River Leam adjacent to Victoria Park in Leamington, very popular with anglers. Funded and managed by the environment Agency this has proved most popular as a platform to spot the new otters that have returned to the river.

40. Abbeydale Weir – Wyre Forest District Council

The removal of this reinforced concrete structure in a live river (River Arrow) required detailed liaison with local stakeholders and the innovative use of the AquaDam to manage the water flows. Silt containment measures proved most effective in mitigating any silt pollution downstream. The project also required close working with the Environment Agency Fisheries team to carry out a fish rescue in the works area. Works were completed in June 2019.

41. Half Mile Lake Desilting Project – Longleat Safari Park

Working for the Longleat Estate, the dredging of the famous lake was one of the most challenging projects to date involving the removal of over 22000m3 of silt. The successful outcome of the project was down to great teamwork and planning to ensure the wide range of safety and environmental risks were managed. The material was pumped almost 2km and routed to minimise any disturbance to the daily operation of the safari park.

Live and potentially deadly hippos, the ever playful sealions, regular boat trips around the lake with strict animal welfare protocols, ecological issues and the need to move the large volume over such a distance was always a challenge – great teamwork was key to such an achievement. Works also included the management of a geotechnical investigation on the dam structures, repairs to bank edges and access paths and the construction of a temporary route for the pipeline including a road crossing. Works were completed July 2018.

42. Weir Modification – River Stour, SouthStaffordshire

The Client for the works was the Severn Rivers Trust working in partnership with the EA for the River Stour Catchment Restoration. Its long-term vision to aid fish migration through the Stour Catchment embarked on a programme to remove physical barriers as the primary focus. The two-stage works included the creation of a notch in the centre of the existing weir to allow improved fish passage with reprofiling of the riverbanks to increase flood capacity and reduce bank erosion up and downstream of the weir.

43. River Brue Vegetation Maintenance, Somerset – SRA & Somerset Drainage Boards

Working for the Somerset Drainage Boards consortium on behalf of the SRA, long reach equipment was brought in to help maintain a 3km stretch of the River Brue and mitigate flood risk with an important vegetation management programme involving the removal of tree branches and any vegetation from within this flood risk zone of the river.

Work was carried out from a floating platform - the vegetation cut using powered tools, transported by barge and offloaded by a 15-tonne long reach excavator with rotating grab. Working closely with the client team, with regular monitoring of ecology and wildlife issues, together with heavy tidal flows and a flood control gate were successfully managed. Works were completed March 2018.

44. Tortworth Lake Restoration, Gloucestershire – Tortworth Estate Company

The valley was dammed to the north of Tortworth Court to produce the lake and the slopes around the lake were planted with trees over 150 years ago. Used during World War II in the winter of 1943/44 as a test site for amphibious vehicles to be used in the 'D' day invasions, this involved restoration of an important heritage asset. Removal of silt and the re-profiling of the watercourses and lake island ensured that the lake remained in good order. Desilting was undertaken of the upper end of Tortworth Lake and a silt curtain installed to protect fish stock, while a geotextile Nico span barrier was installed to extend the island and contain silt. Works were completed May 2018.

45. Highfields Park Lake Restoration – Nottingham City Council

This project saw the restoration of the Lake in Grade II listed Highfields park, also included in the English Heritage's Register of Parks and Gardens of Special Historic Interest. With many parties engaged, years in the planning, this HLF funded project required early involvement by WM Longreach. The redevelopment works comprised lake restoration, fish rescue, temporary works, haul roads, silt removal, earthworks, gates, railings, ironwork, paths, services, building refurbishment, civil engineering works including ornamental bridge restoration, resurfacing and disposal of silt after drying out period (to be done as phase 2), landscaping and site reinstatement.

The innovative solution to pump and store dredged contaminated silt in geotextile bags in the restricted space on site, minimised the impact on the environment. Working sensitively and to schedule despite challenges of public access, flood risk, health and safety issues of working around water and challenges of disposing the silt, together with good co-ordination of the different teams involved in the project was key to its success. Phase 2 works were completed October 2018.

46. Shugborough Car Park Extension & Drainage, Staffordshire – The National Trust

Acting as principal contractor WM Longreach's scope of works included: extension of existing car park (removal of all grass areas and subsoil), installation of timber kerb edging, laying of foundations for ticket office, tarmac resurfacing works to existing paths/car park areas, installation of service ducts, drainage works and associated landscaping. A works programme was developed to ensure close working with the archaeologists on the archaeological watching brief was strictly adhered to and special protection employed for trees in the Grade 1 listed parkland.

47. Cockington Lakes Restoration, Devon – Torbay Countryside Trust

Funded by the HLF with management support from Torbay Development Agency, this project saw the three historic lakes in Cockington Park in Devon restored in the most challenging location. Situated in a narrow steep sided valley with only single track access, the method was key to carrying out the works. WM Longreach used an innovative pumping system to move over 6000 tonnes of silt a distance of 500m with a vertical climb over 30m. Working with volunteer groups to relocate the fish and clear areas of vegetation proved a real success and the public engagement realised a future legacy.

48. Historic Croome Landscape Park Watercourse Project – The National Trust

As part of ongoing maintenance to the Croome River, one of Capability Browns first landscape projects, the company used a range of specialist equipment to remove vegetation. From the smallest 4 tonne long reach to navigate the narrow channels to the low ground pressure (LGP) 13 tonne machine in the wider river section, this LGP machine sat on the river bed when the pontoon solution would not work due to low water levels. The latest works were completed in 2017.

49. Crystal Palace Dinosaur Park Lake Works – London Borough of Bromley

Working with conservation specialists Skillingtons on the Grade 1 listed watercourses and gardens at Crystal Palace, the main project involved the renovation of the world famous (the worlds first) Dinosaur Statues. WM Longreach provided floating equipment to access the lake islands and build a new water level control structure. Innovation here included the use of the AquaDam to provide a dry works area and minimise any disturbance to the historic landscape. Additional works were completed in 2019.

50. Fleet Pond Environmental Enhancements, Hampshire – Fleet Pond Society

With a grant received from Thames Water, the Fleet Pond Society (Patron Chris Packham) were able to proceed with a long-awaited project that would reduce pollution from the sewer system in flood conditions. This would offer long term protection for the SSSI and ecologically sensitive site, home to many rare species in the Local Nature Reserve.

51. Chinese Bridge – Croome River, Croome Landscape Park Worcestershire

After many years of fundraising the recreation of William Halfpenny's 'Chinese Bridge dating back to the 1740s finally became reality. The Capability Brown designed Croome River had to be drained for the bridge construction, which would be detrimental to the Park. An innovative 'AquaDam' solution allowed the area local to the new bridge to drained with minimal disturbance, located in front of the historic Croome Court. No material was required as the dam is water filled and designed to retain up to 1.8m of water. Working with the Green Oak Carpentry Company, the bridge was safely installed ahead of schedule.

52. River Parrett Maintenance Dredging, Somerset Levels – Parrett IDB

Funded by the Somerset Rivers Authority, these were a continuation of important maintenance dredging works, for flood risk reduction on the Somerset Levels and Moors. 2.2km of the Parrett were dredged, with the EA granting special Agency Powers to the IDB for working on the main river. The dredging was undertaken in two main phases: phase 1 working mainly from the banks with silt placed on the bankside; phase 2 with a machine mobilised onto a floating pontoon, loading barges in the river with the silt deployed into nearby fields.

Despite challenges from the weather over the winter period including periods of heavy rain with high water levels, strong winds hindering the mobilisation and movement of floating plant on the river, together with high river flows, the works were successfully completed in March 2016. Determination and hard work of the team resulted in over 20,000m3 of silt being dredged from the river in 15 weeks.

53. Restoration of Spetchley Park Gardens – Spetchley Charitable Trust

Funded by the Heritage Lottery Fund, this important project saw the restoration of the historic lake at Spetchley in Worcestershire with the scope of works including lake dredging, stone walling, landscaping, specialist ironwork gates and fencing. The lake edge had become eroded over time and was reconstructed with coir rolls and lined with puddle clay. Works were completed on time and under budget in November 2015.

54. Dredging of the historic lakes at Fonthill, Wiltshire – Fonthill Estate

The lakes were originally built over 250 years ago when a dam was constructed across the valley. A restoration project was on the cards for over 20 years and finally got underway in 2015 when we worked with their team to devise a solution and involve the key stakeholders. Due to the scale of the project, moving over 30,000 m3 of silt, a fleet of long reach excavators and large dump trucks were used and completed the works at an average rate of 1000m3 of silt per day. A mobile plant permit together with deployment license was obtained from the Environment Agency.

55. Dredging and flood defence improvements, Hampshire – Hart District Council

Cricket Hill Pond near Yateley is a key feature to the local residents providing a leisure amenity together with essential flood storage. The pond had become overgrown and the bank eroded, causing the pond to leak at the outflow. WM Longreach installed a silt retaining structure and then dredged the silt, clearing the vegetation and improving the integrity of the outfall. This had to be carried out at short notice due to heavy rainfall in early 2016. This project is one of many carried out for this client since 2012.

56. Dredging and restoration of Stoneydelph Pond – Tamworth Borough Council

Working directly for the local authority, over 3500m3 of silt was to be removed from this important balancing pond, for both flood prevention and environmental benefit together with community support. Undertaken in the winter months had its challenges, but the work was completed on time and silt taken to a temporary storage area and subsequently removed from site. Works were completed in summer 2015.

57. Fleet Pond Restoration Project, Hampshire – Hart District Council

As the largest freshwater lake in Hampshire, the restoration required the use of floating plant and equipment and an innovative proposal for the removed silt. WM Longreach proposed a 'Nicospan' solution to retain the silt and form artificial islands, which would also provide benefit for the wildlife and ecology of the SSSI site. Commencing in 2012, the works are still ongoing, demonstrating the Company's commitment to repeat work and long term relationships. The project won the prestigious ICE Engineering Excellence Sustainability and the Environment Award in 2013. Phase 3 was completed in 2014 involving the construction of more lake islands using silt build up from the lake, with further projects (2015 & 2016) to improve the resilience of Fleet Pond, with the construction of pollution prevention and flood attenuation ponds.

58. River Perry Maintenance Works – River Perry Group & Shropshire Wildlife Trust

Following flood events in the area from local river catchments, the Shropshire Wildlife Trust supported the removal of vegetation and silt, forming phase 1 of a self-delivery by the local River Group comprising landowners affected by the flooding. After discussion and permissions with the Environment Agency, Phase 2 was agreed enabling much needed removal of silt previously dredged over 30 years ago. The river length to be maintained was over 8 km and the silt was placed locally to the watercourse. The embankments were reprofiled and compacted as required. Regular progress reviews with the EA ensured compliance with the methodology and volumes to be removed.

59. Croome Park Wetland Restoration, Worcestershire – The National Trust

This project involved the desilting and vegetation management of a wetland constructed as part of a mitigation strategy for the larger watercourse restoration works. Using hydrographic survey data the excavation was carried out underwater referenced to the silt

depth recorded on the survey. The silt was spread locally on the adjacent land. Plant and equipment was carefully selected to account for the sensitive nature of the site.

60. Loch Leven Wetland Creation Project – Scottish Natural Heritage

This challenging project on the remote St Serf Island in Loch Leven looked to improve the biodiversity with ecological and wildlife enhancements through the creation of a series of ponds to create a wetland. Access had to use a lightweight pontoon to transport the excavator to the site, using bio-oils and an experienced Operator.

61. Restoration of Old Park Water, Wrest Park, Bedfordshire – English Heritage

The works involved the removal of silt and the reinstatement of this historical watercourse to improve the hydrology at one of Capability Browns creations. As main contractor, the silt was spread locally and subsequently landscaped into the adjacent fields. The lake edges were reinforced using natural materials and reinstated. A follow-on scheme involved the restoration of over 4000 metres of drainage within the historical woodlands, which was undertaken using compact excavators.

62. Clearance and restoration works, River Severn, Shrewsbury

Recent flood events had deposited material along the main river channel used by the Rowing Club and the River Cruises boat, creating a safety hazard. These emergency works for Shrewsbury & Atcham Borough Council involved WM Longreach as main Contractor to level the material and restore the bank edges. From experience, the right plant was selected – a special 'walking excavator' machine that could move the material efficiently and safely in a time critical window in the river, completing the works successfully.

63. Wyrley Essington Branch Canal, Staffordshire – South Staffordshire Council

This project formed part of an environmental improvement scheme for this branch canal, formerly part of the main canal network, involving vegetation and silt removal to enhance the area for wildlife and ecology. Now under ownership of South Staffordshire Council, the limited access proved a challenge requiring both temporary roadways and the use of floating plant. This scheme won a prestigious environmental award on completion on the remaining phase. As main Contractor, WM Longreach completed the works ahead of programme to the satisfaction of the Client on both occasions (2008 to 2010).

58. Queens Park Lake Restoration, Crewe, Cheshire – Cheshire East Council

The desilting of the lake formed an essential part of the restoration works, with over 8,000m^3 of silt to be removed. This was made more challenging by the location of the Valley Brook culvert running under the lake and the need to demolish two lake bridges. WM Longreach agreed a methodology of draining the lake with the EA to avoid silt pollution and a new method for treating the silt to avoid the wet material lying on fields in the park. By treating the silt in excavated 'cells' the spreading of silt was omitted with a huge saving on programme time. The cells were backfilled and the adjacent fields reinstated.

59. Wrest Park, Bedfordshire – English Heritage

This project required the investigation of the old weir structure for archaeological importance. A temporary dam was constructed and the weir de-watered for inspection by a team of archaeologists. By using a 'borrow pit' on site and re-useable bags the dam was installed efficiently with a saving on cost and programme. When the weir was fully inspected, a geotextile membrane was installed to protect the weir structure, the dam removed, backfilled and the area made good.

60. Croome Landscape Park, Worcestershire

This contract comprised the removal of 25,000m^3 of silt from the artificial Croome 'River' and spreading on adjacent fields for landscaping. This park was 'Capability' Brown's first landscape project that inspired the English country garden style throughout Europe.

Working direct for the National Trust and consulting with the Client team on the historical and archaeological issues, the methodology was agreed to mitigate any impacts and record any significant finds. Great care had to be taken to avoid any disturbance to the Park and the lake edging features. Close liaison with the Environment Agency enabled an exemption to be obtained for the dredged material and a plan to be delivered for the management of wildlife and ecology.

61. Shugborough Hall River, Staffordshire

This project included the re-profiling of the river to improve the flow capacity and the installation of a 'soft' engineering revetment to stabilise the riverbank, promoted by the Environment Agency for allowing wildlife and vegetation to colonise. As part of a trial project, the dredged material was spread out to dry and subsequently re-used in the works. The use of low ground pressure tracks on the excavator and the extended reach enabled it to work effectively in soft ground and minimise disturbance to the banks.

62. Coalbrookdale Watercourse Restoration, Shropshire

Watercourse improvements were carried out over 3 phases for Telford & Wrekin Borough Council. Our expertise enabled a sensitive approach to complete the vegetation clearance and de-silting works of these historic furnace pools and associated watercourses. Originally used as the water feeds for the blast furnaces for the Coalbrookdale and Ironbridge industries, this lottery funded project involved extensive restoration in a sensitive location. This project was runner up in the ICE Midlands awards in 2007.

63. West Midlands Safari Park, Worcestershire

Working directly for the Safari Park, this involved the removal of silt from the animal pool area. The management of the animals was a key issue together with safety of the public, mainly staff during the closedown period. Due to the inability to drain the pool a larger long reach excavator with 24 metres of reach was used to work from the one bank side to avoid entering the base of the pool. The Company was also involved in the second dredging operation some 10 years later, where an excavator mounted on a floating pontoon was used. This demonstrates nicely the repeat business we strive for.