

## HAMPSTEAD HEATH PONDS PROJECT LONDON

BAM Nuttall

BIG Biodiversity Challenge Award category: Small Scale Permanent Award

### Project overview

The Hampstead Heath Pond project raised and reinforced several dams which were created in the 18th and 19th centuries to provide drinking water for London. The project also created reinforced grass spillways to safely channel flood waters and increased the size of overflow pipes and culverts. The design takes into full account the need to preserve the Heath's landscape and habitat. The opportunity was also taken to make environmental enhancements, including 2,000m<sup>2</sup> of marginal planting, woodland scrapes to increase wetland areas and decrease silt mobilisation and the installation of aeration equipment to 11 of the ponds. A team of landscape architects, ecologists and hydrologists have worked alongside engineers to ensure that the works will improve water quality and biodiversity.

The £15million project, which is spread over 200 hectares of urban heath and woodland, commenced on site in March 2015 and are due to finish in October 2016.

### What were the biodiversity conditions on site, prior to the enhancement?

Hampstead Heath is managed by the City of London who balance the requirements of a busy London open space with the need to conserve the ecology and biodiversity of the Heath. The Heath has dedicated arboriculture and conservation teams to maintain this ecological oasis within the city

### Were there any specific conditions that led to you carrying out this work?

There were no contract requirements for BAM Nuttall to undertake additional biodiversity enhancement and these works were not including in the design scope of the project.



*The 1<sup>st</sup> of 2 Tern rafts being towed into position*

### What were the biodiversity measures taken?

BAM Nuttall were looking for a project to carry out as part of the UN World Environment Day. Having consulted with the Heaths ecological team, the need for new Tern rafts was identified, to encourage this CWA schedule 1 bird to breed. **Two rafts have been constructed by BAM Nuttall's apprentices and donated to the Heath.** The first of these rafts was launched on 26th July with the assistance of the Mayoress of the City of London and hopefully next spring, tern chicks will once again be hatching on the Heath for the first time in over 20 years.

The rafts used 100mm polystyrene to provide the required buoyancy. This had been used in previous raft constructed by the Heath, but had led to problems when the timber construction decayed, leaving broken pieces of polystyrene **floating in the pond.** **The design we adopted uses recycled plastic 'stockboard' to encapsulate the polystyrene, providing a more durable construction with little requirement for maintenance.**

The rafts have a 50mm upstand wall around the perimeter to hold the gravel which covers the platform to replicate the natural breeding habitat of the tern. Drainage holes have been drilled in the upstand wall to prevent the gravel from becoming waterlogged.

The rafts have posts at each corner to support a wire mesh fence which will eventually surround the raft platform. This is designed to prevent predation of tern chicks, but still enable the adult tern to look out. The raft will also have sections of half pipe, to prevent predation of chicks from the air. The fence has not yet been fitted to allow other birds to use the raft until the breeding season, when the fences will be erected.

Herras fence panel feet have been recycled and used to anchor the raft in place.



*The Lady Mayoress of the City of London cuts the ribbon to launch the 1<sup>st</sup> Tern Raft*

### How would you best describe the project?

An enhancement

### Further information

The raft was constructed on dry land in our main works compound and transferred to the Highgate No.1 Pond by telehandler. It was then towed into position using a rowing boat.

The success of the raft at re-introducing breeding terns to the Heath will not be known until the next breeding season. However in the meantime ducks are finding the raft the ideal place to relax.

### What was your personal motivation for carrying out the enhancement?

I have greatly enjoyed working on Hampstead Heath, an open space that I visited often as a teenager. The Tern rafts seemed the ideal opportunity to give something back to the Heath and encourage such a wonderfully acrobatic bird to dive for fish in the ponds.



*A gull, a duck and a coot share the raft before fencing is added*