

**Whitburn Point Sand Martin Nesting Bank
Whitburn Point Local Nature Reserve and Local Wildlife Site – Whitburn, Tyne and Wear, UK
Network Rail, National Trust and the Marine Conservation Group**

BIG Biodiversity Challenge Award category: Small Scale Permanent Award

Project overview

Sand martins will soon be settling into a new home in semi-urban, coastal South Tyneside thanks to Network Rail and other stakeholders. In November 2016, the National Trust and Marine Conservation Group based at Souter Lighthouse and the Leas, proposed the construction of an artificial sand martin nesting bank on the edge of a small body of standing water within Whitburn Point Local Nature Reserve and Local Wildlife Site. It is hoped that the construction of an artificial nesting bank will provide an alternative and safe nesting habitat from within which greater numbers of sand martin chicks will successfully fledge to sustain and increase the local and national population of the species.

Partnering with Network Rail, who funded two-thirds of the £30,000 cost, around 40 volunteers are building a biodiversity enhancement that will leave a lasting legacy and good will in an area of social deprivation and high unemployment.

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

Prior to construction, habitats onsite comprised coarse grassland, with two ponds and aquatic plants. The site was primarily used as a viewing platform onto the coastal habitats at the toe of the cliffs, atop which the site sits.

Were there any specific reasons that led to this project?

Sand martins, which nest within burrows excavated into sandy coastal and riparian cliffs, are an amber-listed species on the list of 'Birds of Conservation Concern' (European status) and a species of UK Conservation Concern. It was proposed to construct the bank to mitigate the annual collapse of nearby natural nesting cliffs, situated immediately to the east of the site. The natural cliffs are composed of boulder clay with sand, which are adversely affected by annual coastal erosion resulting in their collapse which results in the death of sand martin chicks nesting within.



Artist's impression of the sand martin nesting bank, currently undergoing construction (Network Rail)

What were the biodiversity measures taken?

Unfortunately, due to the time of year at which the nesting bank was granted planning permission (April 2017) it is unlikely that it will be completed and used during the 2017 nesting season and therefore an assessment as to its success in terms of sand martin fledging success cannot yet be made.

However, in future, it is hoped that the sand martin nesting bank will create much needed habitat and provide an excellent feature onsite, ensuring safe and suitable nesting holes for Sand Martin's and reduce the risk of loss to the population on the ever eroding cliff edge. It will help to protect an amber-listed species by providing a stable nesting site and will enable the public, wildlife enthusiasts and experts to access and monitor the species to aid their conservation in future.

The nesting bank will be the first of its kind on the reserve and is innovative in its design and construction. The bank was designed by visiting the few existing nesting banks in the country, identifying flaws, or opportunities for improvement in their design, and implementing measures which mitigated these flaws into the design and construction of the bank at Souter. Other innovations associated with the banks construction included the installation of green roof, topped with earth from the construction area and sewn with seeds from grasses and wildflowers present within the site.

Construction of the bank would not have been possible without senior sign off of Network Rail resources and the voluntary efforts of a multidisciplinary team, made up of design engineers, architects and ecologists to undertake ecological, topographical and geotechnical surveys and the subsequent design drawings for construction. Numerous volunteers from Network Rail, the National Trust, the Marine Conservation Group and the local community have assisted in the construction of the nesting bank.



Volunteers onsite

How would you best describe the project?

Enhancement

Further information

The site upon which the sand martin bank was to be constructed was subject to ecological, topographical and geotechnical surveys prior to construction. Network Rail Ecologists assessment was key to the successful and timely granting of planning permission, after which construction began in April 2017.

Construction began with the excavation of the bank for the formwork and concrete slab to be laid. Blockwork walls were then installed atop the slab, which remains the current status of the nesting bank. Over the coming months; blockwork will be completed and the nesting holes will then be installed in the buildings east-facing wall. The structures roof will then be installed and the bank around it profiled, using gabion baskets, all which will be covered in soil from prior excavations and sewn with seed from the surrounding landscape.

Due to the nesting banks situation within a nature reserve, it will be constantly maintained by its stakeholders and revisited by the public, wildlife enthusiasts and experts to access and monitor the species to aid their conservation in future.

Network Rail, the National Trust and the Marine Conservation Group all benefited greatly from their inclusion in this project. The National Trust and the Marine Conservation Group gained a new biodiversity enhancement which vastly improves their site and the local area, while Network Rail teams gained a great sense of pride from their involvement which also improved morale and relationships within their teams and local community.



Ongoing construction of the nesting bank

What was your personal motivation for carrying out the enhancement?

The team's motivation to assist in enabling the design and construction of this nesting bank was to deliver significant improvement to, and instil pride within a deprived local community by providing economic benefits, through increased visitor numbers and promote interest in local wildlife.