

**THE SOUTHERN STRATEGIC SUPPORT MAIN (SSSM) – CITIZEN OWL BOX SCHEME  
NORTH SOMERSET/SEDGEMOOR  
KIER UTILITIES AND BRISTOL WATER**

**BIG Biodiversity Challenge Award Category: Community Engagement**

**Project overview**

The Southern Strategic Support Main is a 31km water pipeline between Barrow and Cheddar reservoirs which will improve the water supply to 280,000 houses and support the growing local population. The pipeline passes through open countryside and towns and villages providing the opportunity for both biodiversity enhancement and community engagement.

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

The EIA surveys undertaken in 2016 found 25 protected areas, 5 priority/BAP habitats, 200 hedges, 400 standard trees (some TPO protected), 18 ponds with great crested newts, 17 badgers setts within 30m, 3 bat roosts, 1 barn owl roost, 1 kingfisher population, 24 locations of dormice, 400 bee orchids, small population of cave spiders, a small population of reptiles and 10 invasive species. The pipeline was designed to avoid as many of these as possible.

**What were the reasons behind this project ?**

The SSSM is the largest single pipe line scheme ever undertaken by Bristol Water. There was a shared goal by client, contractor and local stake holders (district councils, local conservation groups) to leave a legacy by providing funding and staff time that were outside contract requirements. Local wildlife and habitats were protected as much as possible within the design and environmental management plan. It was our goal to achieve a biodiversity net gain using the biodiversity index calculator generated between Bristol Water and Ecosulis that would be beneficial.



SSSM route



Kier environmental team site visit with Chris Sperring of the Hawk and Owl Trust

### What were the biodiversity measures taken?

The SSSM crosses over 30km of the North Somerset and Sedgemoor landscape, with approximately 200 hedge crossings and over 400 standard trees. The habitat is considerably high quality for owl and hawk species here in the UK and the Kier environmental team wanted to contribute to conservation efforts along the pipeline for these birds that are in decline from lack of suitable roosting and foraging habitat from agricultural intensification.

Kier gave Churchill Academy School and Bridgwater College materials to build barn/tawny/little owl and kestrel boxes for every km of the pipeline (approximately 40 boxes).

The Kier environmental team identified landowners along the SSSM route with suitable trees and habitat and liaised for over 6 months to get the scheme organised. Landowners were very excited at the prospect of being part of the scheme and supporting their wildlife. Kier arranged an evening for all the landowners who had agreed to have an owl/kestrel box. Chris Sperring of the Hawk and Owl Trust and Kier provided owl and kestrel related talks and discussions. It was important that conservation of the species be understood by the landowners and the local community who will take responsibility of monitoring and caring for the scheme after SSSM. Kier Utilities have provided training for their environmental team to ensure they can be licensed in the future and can continue to run the project with the community.

The boxes were installed by the Kier environmental team with consultation and the Hawk and Owl Trust in Spring 2018 in land owned by 24 landowners affected by SSSM. The aim of the project now is to continue monitoring the boxes with the landowners, to gather important population and distribution data and inform habitat management but also improve client/community relations.



*Churchill Academy School with some of the barn owl boxes they built for the scheme*



*Barn owl nest box erected into tree with landowner agreement*

### Further information

The SSSM pipeline has been a unique project with many environmental constraints. It has been challenging to manage these constraints but the Kier team has worked alongside nature, moving where possible and protecting ecological features. In addition to the challenges presented, the SSSM team has committed to a long-term conservation effort with the Citizen Owl Box Scheme. It is intended each box will provide an opportunity for roosting owls to shelter and breed along a linear connection of habitats. By maintaining the boxes and surveying them annually, Kier hope to help the owl and kestrel population increase and to then use data collected to influence habitat management and future protection for the species in the area, complimenting the support of the BRERC action within the Avon Biodiversity Action Plan. The Citizen Owl Box Scheme will be an ongoing monitoring scheme of Kier and the public working together. It has provided a platform for community engagement and making stronger sustainable relationships within the community by working with the common interest of nature conservation. All of this has been completed whilst still achieving Kier's and Bristol Water's vision and allowing the demonstration of a positive biodiversity net gain, according to the biodiversity index calculator developed by Bristol Water and Ecosulis. This is a project that both Kier and Bristol Water are very proud of and can be used as a benchmark of what can be achieved with collaborative thinking, a strong team ethic and a long lasting legacy to the SSSM project.

### Project Team

- Kier Utilities environment team; Jamie Edmonds, Grace Burdge and Rozy Gray
- Bristol Water Environmental Manager; Natasha Clarke
- North Somerset Council, Sedgemoor District Council
- Churchill Academy School, Bridgwater College, Hawk and Owl Trust, and all landowners who accepted the enhancements

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

It was the Kier environmental teams aim to give back to the community a project that could be engaging for all ages, and bringing a closer connection between the local community and their wildlife. The SSSM understood that the project, due to its size, was a negative impact and would require positive action to make up for the disruption.



*Chelvey batch SSSM route with suitable owl habitat adjacent*



*Adult barn owl*