

## Area 1 Species Rich Grassland Creation on Roadside Verges A30 & A38 Exeter to Penzance

EM Highways Services Ltd (Part of Kier Group)

*BIG Challenge 2015 submission category: Pollinator*

### Project overview

The pilot scheme took place on the rural road side verges in Cornwall. It involved collaboration between Highways England (HE), EM Highways (EM), Glendales and Buglife.

The scheme was aligned with BugLifes' B-Lines initiative, creating a nationwide network for pollinators.

EM used the pioneering whole crop method, harvesting the seed from existing local species rich grassland as the seed source and creating new species rich wildflower grassland in order to help stop the decline of pollinating species populations.

This was the first time the whole crop method has been used on the UK Strategic Road Network. Following the pilot scheme in Cornwall, and confirmation that this method is successful, EM are now undertaking further schemes this summer on the A30 Devon (timed to coincide with National Pollinator week), and next summer on the A38 Devon.



*Photo: Before grassland plot*

The creation and proactive management of species rich grasslands (and the pollinating species they support) has far reaching positive impacts on almost every area of society.

The most obvious benefit is the environmental and biodiversity enhancement this work can bring alongside residual benefits to the well-being of people and communities.

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

The chosen receptor sites are overgrown species poor sites covered in invasive

plants species such as petasites, thistles and crocosmia and well as self-seed trees such as ash.

There was very little suitable habitat for pollinating species. The sites were chosen for their potential i.e. south facing slopes (ideal for local wildflowers and the pollinating species they support).

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

These schemes are above and beyond what is required in the maintenance of the roadside verges. They are

an enhancement, designed to create new habitat for pollinating species inspired by the decline in pollinating species populations and the B-Lines initiative.

Roadside grasslands are especially vital for many of the UK's insect and butterfly species and its decline has had a major impact on our native pollinators – 75% of butterfly species are in decline and there have been significant losses in bee populations.

The grassland areas on the A30 in Cornwall were used as a pilot scheme utilising principles of whole life asset management enabling the proposals to compete on an equal footing for funding with other projects and schemes through the HE's Value Management Process.

#### What were the biodiversity measures taken?

As part of the Highways England Area 1 Managing Agent Contractor Contract, EM have designed an ongoing Grassland Management Plan in line with both the Cornwall and Devon Biodiversity Action Plans to ensure that a structured programme of activities is delivered that enables biodiversity and landscape management commitments to be met.



*Photo: Prepped grass plot*

This is a whole life asset management approach that sees the production of a superior grassland environment being considered as an asset management function over the long term as supposed to the more traditional 'environmental or 'soft landscape' activity.

The pilot scheme has shown to be a demonstrable method of achieving best value, is replicable and will lead to biodiversity gain.

Through in depth knowledge of the soft estate a detailed specification was drawn up, which clearly identified both the donor and receptor sites and the work required to facilitate the seed transfer.

Additionally, EM utilised the use of a remote control mower, traditional mowing techniques would not have worked due to the steep gradient of the verge.

From an H&S perspective the risk of injury to the operative was removed entirely. This not only brought about improvements in efficiency but also meant that one man could do the job from a safe distance.

These newly created species rich grasslands have now been incorporated within a regional Grassland Management Plan for systematic maintenance and monitoring.

The results 18 months after seeding are good with a number of species from the donor sites recorded including summer daisy, tufted vetch, buttercup and yellow rattle, offering a good display of colour together with a source of food for a number of insects.

The results were extremely positive and conclusive that the whole crop method can work on road verges utilising equipment and skills that are readily available to most highway service providers, all at a relatively low cost.

Due to the success of the pilot scheme EM are now undertaking the further schemes this summer on the A30 Devon (timed to coincide with National Pollinator week), and next summer on the A38 Devon.

When combined this will create vital stepping stone habitat for pollinating species and restore connectivity across Devon and Cornwall. In addition Buglife have been contracted to undertake a network wide (from Exeter to Penzance) invertebrate survey this summer, with before and after surveys on the A30 Devon receptor sites.

This will provide us with an invertebrate population



*Photo: After grassland plot*

baseline with which to monitor and improve.

#### How would you best describe the project?

An enhancement.

#### Further information

EM adapted and used the relatively new and pioneering 'whole crop' method (developed by the High Weald Landscape Trust) which uses nearby species rich grasslands as seed sources to create similar habitat on species poor areas.

The whole crop method involves the preparation of a receptor site as well as using arisings (whole crop) cut from species rich grasslands as a seed source and in doing so preserving the local provenance of the wildflower species.

The project was implemented in the following stages:

- The site identified for improvement was prepared with unwanted species such as thistles and ragwort chemically treated to avoid their spread.
- All vegetation was cut and removed, use was made of remote controlled mowing technology reducing impact and costs.
- The bed was then rotivated to create areas of bare ground so seeds would have good contact with the soil for germination.
- Once the receptor sites were ready, donor sites were cut and arisings carefully removed so that

a good proportion of the seeds could be transported to receptor sites.

This was the first time the whole crop method has been used on the UK Strategic Road Network.

Subsequent invertebrate surveys has demonstrated an abundance of invertebrate species there where not present before the scheme.

This has long term benefits for local pollinators and the service they provide to the surrounding agricultural industry.

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

I am extremely passionate about protecting and enhancing our natural environment, particularly within Devon and Cornwall which rely on the tourism and agricultural industries for survival.

The trunk roads cut these counties in half and is one of the main obstacles for wildlife in the Southwest.

However, this corridor can also provide opportunities for biodiversity gain if managed properly. I am able to influence this through my job role.



*Photo: Species rich grassland plot*



*Photo: Species rich grassland plot*