

**Graduate Natural Grid
Elstree Electricity Substation
National Grid**

BIG Biodiversity Challenge Award category: Community Engagement Award

Project overview

Elstree 400kv substation is situated near to the M1 motorway on the outskirts of Watford. National grid own 10ha of fields and scrub around the site, which is bordered by agricultural and suburban land.

The site has been transformed by local volunteers into a safe accessible area for the public to use by improving existing habitats and implementing new areas such as wildflower meadows for nature to thrive.

A team of 30 people made this project happen; 10 National Grid graduates, 5 National Grid sustainability leads, 3 site staff and 10 volunteers from the local community.

An initial investment of £7,500 focussed on large scale biodiversity improvements, with a £5,000 commitment for ongoing maintenance over the next three years as these areas develop – all to be delivered through volunteer opportunities and engagement with the local community.

Were there any specific reasons that led to this project?

Our operations and infrastructure all have an impact on the natural environment. Regulations require us to mitigate this impact, but we want to take this one step further. We have introduced an approach called the ‘Natural Grid’ which transforms the way we manage our landholdings by creating better, bigger and connected spaces for nature alongside our energy grids.

This initiative was delivered by graduates and focuses on 3 outcomes:

- contribute to National Grid’s sustainability strategy
- increase the value of our natural assets and manage them to deliver value to our stakeholders and local communities
- develop key business skills for graduates



Elstree substation scrubland– prior to project commencing

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

The site was plagued by fly-tipping, over-grazed by fly-grazing horses and of poor ecological quality. The wetland area was overgrown which meant light couldn’t penetrate through the canopy and many of the trees around the edge of the site had been removed to enable horse access.

What were the biodiversity measures taken?

Working with partners The Conservation Volunteers, a group of National Grid graduates have transformed a 10ha area of non-operational land next to Elstree substation into a thriving area for biodiversity, with a footpath for the local community to use and educational wildlife boards.

Two wildflower meadows have been created to support pollinators, 2,000 trees have been planted around the perimeter to attract nesting birds and improve the air quality impact from the nearby motorway, the woodland canopy has been cleared to create space for light to enable the wetland underneath to become established and hedgerows have been restored. Our natural capital assessment of the site shows a 1:4 improvement in ecosystem services as a result of this project.

Site staff have been key to the implementation, offering their local knowledge, introducing the project team to the neighbouring farmer who helped to source native wildflower seeds and providing volunteers with storage place for their tools and facilities. The biodiversity initiatives have been implemented over a period of 8 weeks, and the work has been completed by a mixture of volunteers from the local community and National Grid staff volunteering their time in addition to the 'day job'.

The creation of wildflower meadows has enabled the team to understand the time implications and practicalities of using two different methods (strim and rake / plough and plug) – learning which is now being put into action at other sites in development.

This project contributes towards National Grid's target of implementing sustainability action plans at 50 sites by 2020 and is now being managed by a team of regular volunteers who live nearby, to ensure a lasting legacy.



Snapshot of the educational boards that have been installed along the public footpath, highlighting biodiversity enhancements

How would you best describe the project?

Enhancement

Further information

The project is part of a wider initiative where graduates take responsibility for transforming non-operational land on our sites, meaning we can deliver a number of projects similar in scale and impact. The initiative delivers fantastic environmental and social benefits for the surrounding communities, and instils sustainable decision making in our future leaders to ensure that we continuously improve our approach to managing and enhancing our land.

The graduates worked with the community to create a business plan which they presented to senior leaders in National Grid to obtain funding. Business plans were formulated using our Natural Capital tool, allowing for a biodiversity baseline to be created, and different options tested – helping the graduates to identify the highest impact option to deliver on site. This helped the graduates to demonstrate clear environmental and community benefits along with long-term business savings for the company in terms of management of the site, which ultimately lead to business approval and sanction of the projects.

The plans were realised on site over winter 2016/17 and have exceeded the expectations set at the start of the project. The group have carried out lessons learnt reviews, to pass on their insight to the groups stepping up to the challenge next year. The volunteer group are planning to conduct wildlife surveys on site over the summer months to measure the biodiversity and natural capital impact and there has already been an uptake in public use of the site.



A team of community volunteers restoring hedgerow sand improving the woodland habitat

What was your personal motivation for carrying out the enhancement?

We wanted future leaders of the company to learn about the importance of biodiversity and working with our local communities.

It's been a pleasure seeing the biodiversity plans put into action and hearing from the volunteers how this has helped them learn new skills, confidence and an appreciation for nature.