



Pic from Friends of Goostrey Station

Community rail and biodiversity

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Rail Delivery Group



Introduction

Community rail is playing an increasing role in enhancing environmental sustainability via biodiversity, gardening, and wildlife projects, developing stations as green spaces offering multiple benefits to communities and ecosystems.

Many station groups, often supported by Community Rail Network and our partners, focus much of their efforts on community gardening and other projects connecting with and nurturing nature.

This report considers how community rail impacts on biodiversity, looking at the types of projects taking place, the benefits of these, and opportunities to increase the movement’s impact in this area.

This is the third in a series of three sustainability-related reports sponsored by Rail Delivery Group (RDG). It follows ‘**Community rail: encouraging and enabling modal shift**’, highlighting how empowering communities to travel through sustainable and healthy means offers benefits for local people, places, and our climate, and ‘**Community rail and sustainable development**’, exploring how community rail can stimulate sustainable development at a local level.



Hall Green Station wildflower garden

A brief overview of biodiversity

“Biodiversity is the amazing variety of life on Earth... it is simply, ‘Big Nature!’”¹

National Trust

Biodiversity means the variety of all living things, and it’s essential for supporting all life on the planet, including humans.² Having a diverse range of animals, plants, and microorganisms can produce healthy ecosystems: the interactions and interdependencies between all living things within a certain area.³ The greater the variety of creatures working together in an ecosystem, the greater the capacity of that ecosystem to resist shocks and support life.⁴ It is therefore widely acknowledged that maintaining and enhancing biodiversity is critical to protecting our natural world.

Biodiversity is fundamental to our well-being and quality of life, but it is currently declining faster than at any time in human history.⁵ More species of plants and animals are now facing extinction than ever before, and global biodiversity losses are impacting the ability of nature to support humanity.⁶

“Biodiversity, the unique variety of life on our planet, is more than just flora and fauna. It’s the lynchpin to the continued existence of our species. Remove the pin, and everything begins to come apart – climate, food chains, weather, the economy, our way of life and place in the natural world”⁷

European Commission

The biodiversity crisis and the climate crisis are now understood to be twin crises, interconnected, with each worsening the other. It is acknowledged that tackling these crises will require coordinated global efforts and local actions addressing both issues, and halting and reversing the loss of biodiversity and ecosystems is now seen as a top priority for governments worldwide, particularly as countries strive to make green and inclusive recoveries from the COVID-19 pandemic.⁸

The UK is one of the world's most nature-depleted countries, in the bottom 10% globally and last among the G7 group.⁹ Over the past 50 years, factors including urbanisation, agriculture, pollution, and climate change have caused significant declines in plant and animal populations, with 41% of all UK species decreasing in abundance since the 1970s, and 15% facing the threat of extinction.¹⁰

In a bid to reverse this trend, focus has shifted to achieving biodiversity net gain, to protect and enhance the environment for future generations. **Biodiversity net gain** is an approach to development, and/or land management, which aims to leave the natural environment in a measurably better state than it was beforehand.¹¹

It is one of the key biodiversity policies in the UK government's 2021 **Environment Act**,¹² and has the potential to make significant differences in areas such as planning, with biodiversity net gain now a mandatory condition for all new developments and nationally significant infrastructure projects.

The Environment Act has also brought about the development of Local Nature Recovery Strategies, to identify and pursue opportunities for recovering or enhancing biodiversity, habitats, and species, and to map out local priorities.¹³ The government anticipates that there will be around 50 strategies which together will cover the whole of England with no gaps or overlaps. They will be evidence-based, locally led and collaborative, to create a network of shared plans that the public, private, and voluntary sectors can all help to deliver.¹⁴ Responsibility for the strategies may vary, but they are likely to be led by public bodies with a strong knowledge of local areas, such as local authorities.

When we talk about biodiversity in a community rail setting, it might relate to the environment in and around a station, or a section of a site, e.g. a garden or wildlife area. However, work at and around stations and within community rail can also have a wider impact on biodiversity, such as by supporting community efforts to protect certain species, and raising awareness among local people about everyday steps to support wildlife. As the below diagram shows, community rail settings have the potential to contribute to local strategies, and form part of a wider network to reconnect fragmented habitats and bring biodiversity and wildlife back to local neighbourhoods.



Copyright of The Wildlife Trusts – from 'Towards A Wilder Britain: Creating a Nature Recovery Network to bring back wildlife to every neighbourhood'¹⁵

Biodiversity and rail

In its **Williams-Shapps Plan for Rail**,¹⁶ the government states that it wants rail to “spearhead the nation’s ambition to become a world leader in clean, green transport.” A comprehensive environment plan for the rail network, part of Great British Railways’ 30-year strategy for the industry, is due to be published in 2022, and is set to include a host of specific environmental commitments, including on biodiversity.

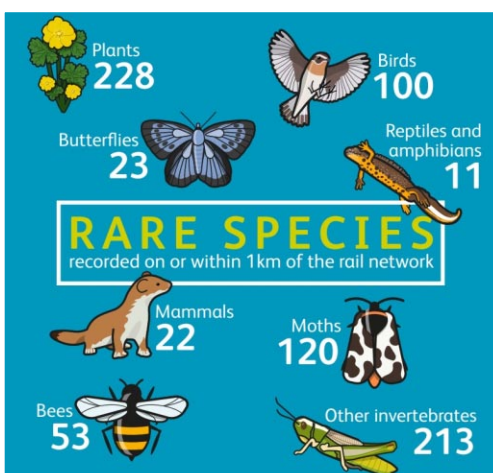
In accordance with the Environment Act, public bodies, such as those involved in managing rail’s extensive estate, are bound to protecting and enhancing biodiversity and the natural environment. Within its **Environmental Sustainability Strategy 2020 – 2050**,¹⁷ Network Rail, which owns 52,000 hectares of land along Britain’s railway corridors, includes improved biodiversity of plants and wildlife as one of its four priorities. **One of the strategy’s goals is to achieve no net loss in biodiversity on Network Rail’s lineside estate by 2024, and move to biodiversity net gain by 2035.**

In its **Biodiversity Action Plan**,¹⁸ Network Rail outlines its approach, committing to working in partnership to ensure its estate “contributes to improving the biodiversity of local areas, and also maximises the value and connectivity of its routes as wildlife corridors.” One aspect of this data-driven and integrated approach will be comprehensive, ongoing assessments of the type and condition of biodiversity assets across the rail network, including species and habitats.

Community rail partnerships and station groups can feed in information and ideas on any relevant projects, such as where good practice exists and benefits biodiversity, and where there are opportunities to connect rail industry efforts with community projects and local strategies. The need for rail to engage with community partners is stated in the Department for Transport’s (DfT) **Rail Environment Policy Statement**,¹⁹ which outlines community engagement and communication as key to developing route level action plans and turning biodiversity net gain into practice.

Via its **Sustainable Stations**²⁰ guide for industry, RDG also considers how stations can play their part in the government’s commitment to deliver net-zero emissions by 2050. The guide highlights biodiversity as an important part of improving the sustainability of stations, identifying the role they can play in areas such as improving air quality, creating more green space, and supporting pollinators and other wildlife.
















The guide outlines a host of practical recommendations on how biodiversity can be enhanced at different types of stations (see next page). It also highlights the importance of volunteers, particularly within station adoption, in making biodiversity improvements, and working with local environmental and conservation groups. The guide calls for biodiversity enhancements at stations to move from being seen as a “nice-to-have” to being recognised for their impact on both environmental sustainability and social value.



Britain’s rail network provides ecosystems for a diverse range of rare species. Railways often run through fragile and valuable wildlife habitats, but they are natural pathways to allow seeds to spread and can act as important ‘green corridors’ for many species. Even small-scale changes, such as incorporating a mix of plants that provide pollen and nectar all year-round, can make a significant positive difference to biodiversity.

Diagram adapted from Network Rail’s Biodiversity Action Plan

Practical steps to improve diversity in and around stations – adapted from RDG’s Sustainable Stations Guide²¹ (pp 12 & 13)

 <p>Incorporate wildflowers in planters</p>	 <p>Support volunteers and local groups to lead and implement biodiversity enhancements</p>
 <p>Install bird boxes on buildings and larger trees</p>	 <p>Include native species and wildflowers providing year-round nectar, seeds, or berries</p>
 <p>Incorporate tree lines or hedgerows in car parks to provide habitat connectivity and soak up pollution</p>	 <p>Install insect hotels using recycled wood and involve local children</p>
 <p>Install green/living walls to provide an ecological habitat and offset emissions</p>	 <p>Introduce a small pond to provide a habitat for frogs, toads, and insects</p>
 <p>Incorporate native flower and shrub species in car parks for pollinators</p>	 <p>Avoid use of herbicides and pesticides</p>
 <p>Incorporate sustainable drainage and watering, such as ponds, swales, and water butts</p>	 <p>Use peat-free compost for planting, potting, and mulching</p>
 <p>Consider tree planting around the surrounding area</p>	 <p>Repurpose and reuse materials and containers as much as possible, or if buying new, choose sustainably sourced materials and avoid single-use plastics</p>
 <p>Add pollinator-friendly planting in planters</p>	

Bentham Station



Biodiversity and community rail

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Station environments are particularly suited to biodiversity projects. They often already have a wide variety of mature planting and insect life that thrives on them. You can create biodiversity with just planters, tubs and hanging baskets. All help to create micro-environments that support the larger environments of which they are a part.”

Bee Friendly Trust

- Around **1,200** stations are adopted across Britain, with the vast majority of adoption groups involved in some form of biodiversity/gardening/wildlife activity.
- Since 2016/17, Community Rail Network has directly funded more than **170** biodiversity/gardening/wildlife-related projects in England, many supported by our **Small Grants Fund**.
- Common **biodiversity-related** projects within community rail include
 - creating station and community gardens;
 - enhancing wildlife habitats;
 - delivering nature education and awareness-raising activities;
 - engaging communities, e.g. in volunteering, educational programmes, food growing schemes.
- **Biodiversity** schemes are being led by an increasingly diverse range of groups, including station friends, ‘In Bloom’ groups, schools and colleges, and environmental groups and charities.



The Bottesford Friendly Garden

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Protecting and enhancing biodiversity is one of the most important things that we can do to combat climate change and make the world a better place for us all. Community rail groups are carrying out fantastic work in this area right across the country. Network Rail is committed to improving biodiversity across our network, and greening our stations will help achieve this goal, while also making stations more attractive and pleasant places to be, and bringing communities together to lead more sustainable lifestyles.”

Dr Neil Strong – Biodiversity Strategy Manager, Network Rail

How is community rail contributing to biodiversity gains?

Community rail partnerships and groups are continually evolving and deliver a huge range of activities. Gardening and outdoor activities continue to be a mainstay, particularly for station friends or adoption groups. Their activities show that even stations with limited or no green areas can still be made greener and used to enhance the local environment. Groups are becoming increasingly aware of their potential to benefit wildlife through this work and are tailoring activities to deliver biodiversity gains. Community rail partnerships are helping to coordinate wider projects on environmental issues, linking together localised initiatives and supporting station adoption groups.



A 'Buzzing Stations' bumblebee safari

Enhancing natural environments

Just about all station groups and the majority of community rail partnerships carry out practical work to enhance stations and the environments surrounding them. Hundreds of station gardens have been created across the network, some on a large scale, others small but well-used and tended patches of ground. Countless areas of 'grey space' have been made greener with the addition of planters, tubs, and hanging baskets, transforming barren areas into pockets of life.

Biodiversity gains do not automatically follow on from any environmental or gardening project, but awareness is growing, and many community rail partnerships and groups work in ways to ensure their activities contribute to local ecosystems. This includes commitments to organic gardening practices including: ²²

- Adopting sustainable, organic gardening practices, avoiding the use of chemicals, being peat-free, and cultivating fertile, biologically active soil;
- Avoiding monoculture planting, where just one species, e.g. bedding plants that will all flower at the same time, is planted extensively to the exclusion of other diverse species;

- Ensuring pollinator-friendly planting, growing a variety of plants and flowers that bloom and seed at different times;
- Leaving 'relaxed' areas, such as hedges, wood piles, compost heaps, and longer grass, to offer food and shelter for wildlife;
- Avoiding extensive use of hard surfaces, e.g. paving or decking, which reduce growing areas and deter natural life;
- Adding different dimensions to green spaces by adding trees, hedges, shrubs and covering walls and fences with climbing plants;
- Maximising the space available and making that space as diverse as possible, for example, by creating wildflower meadows, allowing the 'rewilding' of areas, or transforming wider areas.

Projects that follow the above principles have the potential to contribute to biodiversity net gain, and many stations across Britain are key sites for supporting biodiversity, with people enthused by making a positive contribution to their natural environment, and maximising environmental and social value from the railway estate.

CASE STUDY: Greater Anglia station adoption groups



Station adopters increased the total area of station garden across the Greater Anglia network by 14% in 2020, devoting much of it to creating biodiverse, wildlife-friendly areas.

Groups also almost doubled the number of planters on stations across Norfolk, Suffolk, Essex, Cambridgeshire, and Hertfordshire to 454, up from 238 in 2019, as well as adding 61 insect houses and 41 bird boxes.

Greater Anglia has joined the WildEast movement, pledging over 6,400 square metres of rail station land – the equivalent of five Olympic-sized swimming pools – to help the region’s wildlife. 56 station gardens have been

added to WildEast’s ‘map of dreams’, which is tracking the amount of land pledged to help meet its target of giving 20% of the region back to nature by 2050. A survey found those gardens were hosting or being visited by more than 200 species.

One example is a new wildlife garden at Westerfield Station, where plants with different flowering times, including perennials, grasses, and wildflowers, have been planted to attract bees and pollinators. The garden has information lecterns provided by the Suffolk Butterfly Conservation Trust and Friends of the Earth, and planters filled with herbs, tended by Cub Scouts.

CASE STUDY: ScotRail and Perth Station Garden



ScotRail recognises that its rail estate offers key sites to support local biodiversity efforts, and in recent years has delivered biodiversity projects at 32 stations and four depots across the country. This has included the enhancement of station gardens, and the creation of nine wildflower meadows and three ponds. The projects have upskilled nearly 200 volunteers, and the operator has engaged with schools in deprived areas to promote biodiversity learning and offer visits to biodiverse areas for more than 300 children.

At Perth Station, volunteers have transformed an area of derelict land into an award-winning biodiversity garden. The space now has two ponds, an orchard, a wildflower meadow, vegetable beds, nest boxes and bug hotels. An initial ecological survey was carried out at the site to provide a baseline against which to measure changes in biodiversity, and species data is recorded and added to a national database via local experts and community groups.

Nurturing wildlife habitats

Railway stations offer ideal environments for a diverse range of flora and fauna. Transport corridors, including railways, provide safe habitats, food, and nesting sites for pollinators, and help to connect fragmented remnants of other habitats such as species-rich grassland, heathland, and woodland. Stations have a key role to play so as not to become ‘dead spots’ within the corridor which would prevent pollinators, and other species, moving around the landscape and make them more vulnerable to the effects of habitat loss and climate change.²³

Increasingly common activities within community rail that specifically aim to offer food and shelter for different species include:

- Using a combination of plants and flowers that bloom and seed at different times to offer food to wildlife year-round;
- Planting (or leaving in place) trees and shrubs to offer food and areas for shelter and nesting;
- Creating ponds to offer habitats for amphibians and insects, and water for birds;

- Building bug and insect hotels, bird and bat boxes, and leaf, log, and stone piles;
- Allowing space for designated ‘wild’ areas, such as with brambles or long grass, and letting wildflowers and native plants self-seed to provide habitats and food sources.

As well as providing habitats for as abundant a range of wildlife as possible, some community rail partnerships and station groups have also adapted sites to cater for particular species, to encourage and nurture local populations, and assist conservation programmes.

Some have begun to monitor the species they see in specific areas, e.g. on individual stations, to assess the impact of the changes they make, and usage of new habitats they create.

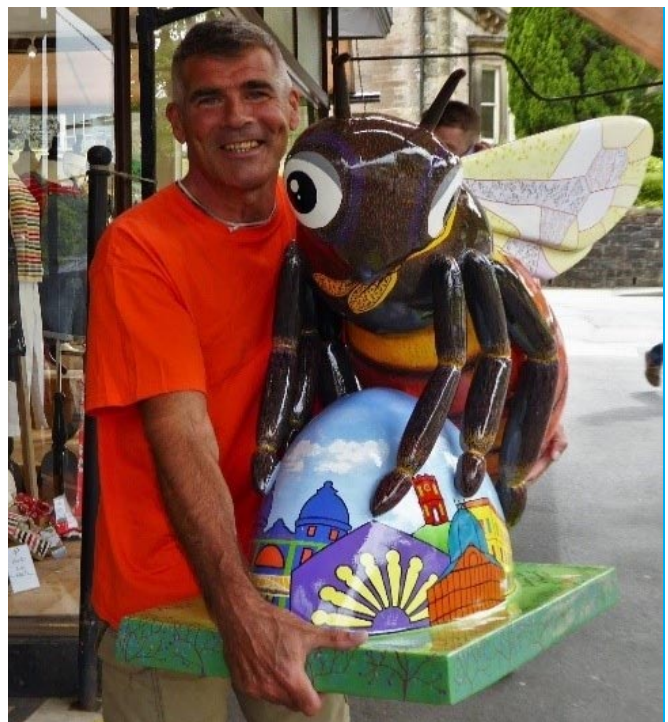
This type of data can be added to the National Biodiversity Network database, which is a great way for groups and organisations to share the wildlife information they hold more widely.²⁴

CASE STUDY: ‘Buzzing Stations’

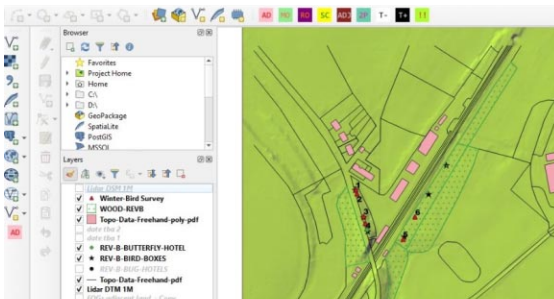
Coordinated by the High Peak and Hope Valley Community Rail Partnership, ‘Buzzing Stations’ aims to ensure that station gardens are bee-friendly habitats. The project involves various station groups, including Buxton, Glossop, and Hadfield, working with the Bumblebee Conservation Trust and Northern, and has a particular focus on a rare and endangered bumblebee that is native to the High Peak, the Bilberry Bumblebee.

At Buxton, the Friends of Buxton Station have built the ‘Bumblebee Express,’ a special planter made from recycled railway sleepers that has been filled with moorland plants designed to nurture and feed the bees all year round, including bilberry flowers, heather, clover, and bird’s foot trefoil. The planter is accompanied by artwork and information explaining the project and importance of bees’ role in pollination.

Station groups have also started to lead bumblebee safaris in their local areas, encouraging people to appreciate the wildlife on their doorstep, learn about the habitats that bees and other species need to survive, and get involved in protecting local bee populations.



CASE STUDY: Friends of Goostrey Station – wildlife mapping



The Friends of Goostrey Station have embraced technology to enhance their growing range of biodiversity projects. Members use a Geographical Information Service (GIS) to record different species and their locations. The system uses free [Open Source Software](#) to create maps, allowing data to be stored so users can monitor biodiversity over time.

Building on the data, the group have added bird and bat boxes, bug hotels built by Goostrey Cub group, and plants such as Buddleia, a shrub that provides an important nectar source for butterflies, moths, and other insects.

Using the system, the group can monitor different species of birds and bugs using the new habitats they install, and have tracked trends including an increase in butterfly numbers, attributed to the planting of butterfly-friendly plant species. A new GIS map is created every month and uploaded to the [wildlife section](#) of the group's website.

Adding green spaces to communities

Community rail partnerships and groups can contribute to local biodiversity by simply adding to the amount of green space in local communities. Green spaces are being created or added to at stations across Britain, sometimes by taking 'grey space,' e.g. station platforms or station surroundings, such as car parks, paths, and approaches, and adding features like planters or green walls.

Some larger sites, like former sidings or other railway land, are being developed into community gardens and growing areas, with communities actively engaged in planning and delivery.

By adopting the organic gardening and wildlife-friendly approaches discussed earlier, these spaces can be nurtured to attract a diverse range of life and add to biodiversity. Experts have spoken of the benefits of everyone playing their part in creating a “national network of little patches of miniature nature reserves”²⁵, and such areas can complement the local nature recovery networks highlighted in the government's Environment Act.

Biodiversity projects that promote sustainability and increase the amount of green/social space available to communities can also help to develop the sense of place that research indicates is critical to sustainable development, with people enthused and engaged in the process of building the type of communities they want to live in.²⁶ Regular access to green space and the outdoors can reconnect people with nature, improving their quality of life in a range of different ways, and in turn encouraging more sustainable behaviours.²⁷

This can create a positive feedback loop, as communities and individuals place greater value on the environment, strive to maintain and enhance the green spaces they have access to, and take greater care of the nature on their doorstep. Biodiversity projects within community rail can provide an ideal outlet for those wanting to help make their communities more sustainable, and reinforces the important message that the railways are a greener way to get around.

CASE STUDY: Bottesford Friendly Garden



The Poacher Line Community Rail Partnership transformed a neglected piece of land, including an old station building, next to Bottesford Station into a garden, wildlife haven and educational space.

After engaging with local communities via meetings, forums, and social media to ascertain their wants and needs, the partnership teamed up with the Bee Friendly Trust to develop the site.

The local primary school and Beaver group designed different aspects of the garden, and more than 90 volunteers helped to clear the land. The garden was built to incorporate

raised beds and paths, a rockery, a greenhouse, bug hotels, a pond, and a composter, to complement the planting of wildflowers and fruit trees.

As a result of the project, a station adoption group was set up, and a gardening club with the local secondary school. Once the building is fully restored, it will become an education space fitted out with boards containing wildlife facts and the story behind the garden.

The partnership also has plans to team up with ‘The Friendly Bench’, a community project in Bottesford that tackles loneliness and social isolation, to develop joint initiatives.

CASE STUDY: ‘The Bees’ Knees’ – Alresford Bee Friendly Community Station Garden



Adopters at Alresford Station wanted to create a sustainable wildflower garden for their community to enjoy, and ensure the station felt cared for.

Working with Essex and South Suffolk Community Rail Partnership, Greater Anglia, Alresford Primary School and the Bee Friendly Trust, the group focused their design on plants that provide a food source for pollinators, and a sculpture depicting waiting commuters which also serves as a wildlife habitat.

The project produced a relaxing garden with a sustainable message, offering a place for visitors to reflect, and look and listen for returning wildlife. The addition of a solar-powered ‘talking bench’ also provides opportunities for visitors to reflect and learn more about the garden and the history of the area.



The biggest, and most unexpected, success of the scheme was how the garden provided the community with a focal point during COVID-19 lockdowns, supporting local wellbeing and resilience. Socially distanced workshops were held with local school children, and the station became a destination for people taking walks or exercise.

The garden has been recognised by DEFRA and the Bee Conservation Trust, winning the 2020 ‘Bees Need’ award.

CASE STUDY: Evesham Station Garden Project



The small team of station adopters at Evesham, situated on the Cotswold Line between Worcester and Oxford, have been working on the station garden and platforms since 2014. In that time, they have transformed what was an overgrown and neglected area into one that is now hugely appreciated by visitors, passengers, and railway staff.

More than 1,400 reclaimed bricks uncovered on the site have been used to lay out a series of paths and to construct various raised beds. Extra planters have also been added along the recently extended platforms, to provide vibrant

and colourful views for passengers. The garden also contains a diverse range of trees, bushes, and shrubs, and a green wall decorated with climbing roses. To encourage wildlife, the group have created four small ponds, including one as the central feature of one of the new flower beds.

The group are adept at forging partnerships with local businesses, with two garden centres supplying plants either free or at discount price, and a local food manufacturer providing water butts to collect rainwater and reduce the need for mains water.

What co-benefits result from biodiversity projects within community rail?

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Biodiversity projects can have real social, educational, recreational, and health benefits, not just to those participating in their creation and maintenance - especially station adopters - but also to the travelling public. Stations alive with plants, insects, and other wildlife are brighter, safer, and more joyful places to wait for a train.”

The Bee Friendly Trust

Alongside their positive impacts on nature and the environment, biodiversity projects within community rail also produce a range of co-benefits for local railways and of course the communities they serve. Some are obvious, such as the rewarding aesthetic and feel-good effects projects can have on stations and their immediate surroundings. They can be transformed into hives of activity, full of life and colour, making them more attractive and welcoming for everyone. Projects can also add character and a point of difference, offering sources of community interest and pride. Beyond this, there are numerous benefits to the communities and individuals involved in such projects, who are brought together around their shared passion for the environment and the natural world, or simply wanting to do something positive for their local area.

Improving physical and mental health

Projects linked to biodiversity and nature are becoming increasingly common among station adoption groups, accounting for thousands of volunteer hours across the network. Research shows that volunteering improves physical and mental health, and supports people to lead happier, healthier lives.²⁸ These feelings can be magnified by involvement in biodiversity projects, as people simply feel better from being outside in the fresh air, being in touch with nature, and socialising with others in the great outdoors.²⁹

As well as enhancing biodiversity and local environments, ‘green’ projects provide a focus for groups to come together around a shared interest and develop strong friendships, helping those who may have been experiencing social isolation in some way. Our evidence shows that learning new skills, or feeling an acknowledgement that their skills are valued, can improve the psychological wellbeing of individuals, with some feeling positive effects linked to conditions such as depression and anxiety, and others citing improvements in general physical health.³⁰

There are also examples within community rail of biodiversity-related projects, e.g. the creation of community or sensory gardens, contributing to stations becoming bases for positive social change. Due to their perceived sense of neutrality, safety, and familiarity, they can be ideal sites for community activity aimed at increasing social sustainability, such as support groups who might want to deliver activities in a different setting.³¹

Volunteers get planting at Derbyshire's Duffield Station



CASE STUDY: 'The Rail Journey to Recovery' - Green Road Station



The 'Rail Journey to Recovery' is an innovative project between Community Rail Cumbria and Turning Point, a charity specialising in the rehabilitation of people with substance and alcohol abuse issues. The project integrates rail-based activity within established programmes of rehabilitation, focusing on enhancing participant's self-esteem, social interaction, and confidence.

An unanticipated outcome of the project was the formation of a station friends' group at Green Road, a remote location on the edge of the Duddon estuary. Residents of Turning Point's Stanfield House in Workington travel by train to care for the station and have worked to

restore its prize-winning gardens to their former glory. They also have plans to renovate redundant station buildings, including developing one as a nature room, displaying the geology, flora and fauna of an area of Special Scientific Interest.

Those behind the project state that community rail offers the ideal vehicle for participants to rediscover their self-worth and feel the satisfaction of 'giving something back' to local communities. This is enhanced by the biodiversity projects, which benefit physical and mental health by encouraging group members to embrace nature, appreciate mindfulness, and talk about their feelings.

CASE STUDY: Largs Railway Station Community Garden



In 2017, station adopters at Largs came together to transform an old siding into a healthy and educational community garden, designed to offer a place to raise awareness of native plants that had been Scotland’s main source of food and medicine during the Viking period.

The objective of the garden was to engage people of all ages and abilities in a community project, particularly those with health issues, to enhance social inclusion. The gardening group used whisky barrels as raised beds to allow people to grow their own flowers, vegetables, herbs, fruit bushes and trees, and membership increased to over 40 people, including members of a local stroke support group, gardening, and rotary clubs.



The group decided to install a Viking boat as the centre piece of the garden, and other improvements have included a Viking Hut, a wooden thistle sculpture, a rainwater harvesting system, and paths for wheelchair users, made from free materials destined for landfill. The garden’s mixture of history and social engagement has led it to become a popular attraction in its own right, offering a tranquil and inclusive space that a diverse range of community groups continue to appreciate and enjoy.

Engaging young people and marginalised groups

Stations are increasingly being adopted by a wider range of groups, with biodiversity projects offering a common strand of activity to bring different elements of the community together, strengthening bonds. A growing number of stations are being cared for by schools, colleges, and youth groups, with others tended to by community groups and charities that support marginalised groups, people with disabilities or additional learning needs.

Many community rail partnerships and groups work with young people on biodiversity projects, encouraging children and teenagers to learn about wildlife in their area and take an active role in caring for it. This often includes working with schools, colleges, or Cubs, Scouts or Beavers. Young people are often passionate about the environment and doing what they can to protect it,³² and show great enthusiasm in gardening activities or creating wildlife habitats such as building of bug hotels. This also offers crucial youth input into community rail activity, and engages young people with their local stations and railways, helping to support sustainable habits in their formative years.

Involvement in ‘green’ projects also enables vulnerable adults, families, and people with mental health issues and physical and learning disabilities to connect with nature, learn skills, and improve their mental wellbeing and physical health. Alongside the enjoyment of spending social time in the outdoors, research has found that for people with disabilities, the activity of caring for plants and wildlife can be an effective therapeutic tool which promotes educational benefits, increases self-esteem, fosters teamworking, and offers feelings of pride and accomplishment.³³



A raised planter at Welwyn Garden City Station

CASE STUDY: Snodland Station – ‘A Chance to Grow’



The Five Acre Wood (FAW) and Grow19 Project empowers students aged 16 to 25 with additional educational needs to feel valued in their community and develop functional skills through real-life experiences.

Kent Community Rail Partnership worked with the group to transform an unsightly grassed area outside Snodland Station, plus the station’s booking hall, with activities linked to their coursework and portfolios. The partnership organised training around rail confidence and independent travel to allow the students to visit the station and develop their ideas. They formulated project plans and budgets, prepared the ground, built planters, researched flowers and plants to include, and designed and created artwork to enhance the station interior.

FAW have now adopted the station and become an active member of the Medway Valley Line group, offering a youth voice on future projects and events. The students continue to maintain the site, which gives them an enormous sense of pride and achievement, and their efforts have helped to reduce litter and anti-social behaviour. In addition to improving their teamwork and practical skills, the students have vastly improved the appearance of the station, its standing within the local community, and its contribution to local biodiversity.

CASE STUDY: 'Poacher's Patch' at Sleaford Station



Aware of the benefits gardening offers to physical and mental health, the Poacher Line Community Rail Partnership transformed a patch of land at Sleaford Station into the 'Poacher's Patch' allotment, to give the local community a safe environment to connect with nature.

To assist with the design, they approached Kirsty Ward, owner of Lincolnshire blog 'My Little Allotment,' who had started her own allotment in 2017 as an alternative therapy to help with the PTSD she experienced with the birth of her second daughter.

The partnership teamed up with Rainbow Stars, a local charity supporting adults, children and their families living with hidden disabilities, to develop the space. A shed was built, raised beds and water butts added, bird and bug hotels installed, and pollinators planted to encourage bees.

Rainbow Stars have now planted up the allotment, and their intention is to design an educational programme around 'Plot to Pot,' which will give people experience of growing, cooking, and eating healthy foods, equipping them with valuable life skills to support independent living. As well as nurturing a love of gardening and biodiversity, produce from the allotment will also be donated to local food banks and lunch clubs.

Encouraging sustainable communities

RDG's Sustainable Stations Guide³⁴ points to stations acting as 'beacons of sustainability' in local communities, via community-led projects that promote sustainable development and behaviours.

There are various examples within community rail of this happening, as highlighted in our report on **sustainable development**³⁵, where positive impacts related to social inclusion and community development are often intertwined with environmental improvements.

As we have shown, outdoor and gardening-related projects in community rail increasingly involve deliberately sustainable practices, such as effective water management, repurposing materials, avoiding the use of chemicals, peat-free gardening, pollinator-friendly planting, and providing wildlife habitats. There is also an impressive range of partnership work with organisations that are focused on nature and the environment, and local conservation, forging links and strengthening sustainability networks. As stations become greener and more biodiverse, and especially if communities are engaged in this process, they become a reminder for people to consider issues such as energy use, carbon, and waste, and encourage them to live more in harmony with other creatures and their natural surroundings.

Projects can also highlight the importance of communities being more self-sufficient and moving towards more circular economies. Stations are increasingly being used as sites for community growing projects, based on organic gardening principles, causing people to think about their health and lifestyle, and how this might be supported by nature and their locality.

CASE STUDY: The Secret Garden at Avonmouth Station



The Secret Garden at Avonmouth Station came about in 2019 when a disused platform compound was transformed by volunteers into a food growing and learning scheme. The aim was to empower members of the community, of all ages and backgrounds, to develop skills to grow some of their own food at home, thereby reducing dependency on charitable support and maximising the health and wellbeing benefits of growing and eating fresh produce.

With funding from Great Western Railway and help from their apprentices, the project is led by Incredible Edible Bristol, supported by Severnside Community Rail Partnership, volunteers from Network Rail, and the local Community Payback Scheme. 'Wellbeing Wednesday' sessions allow vulnerable people to drop in on an informal basis, some signposted under social prescribing by GP and NHS services.



An array of fruit and vegetables are now being produced and shared with the local community centre, providing ingredients for soup and lunch clubs. Since the onset of COVID-19, produce has also been included in food parcels distributed to those most in-need. The Secret Garden team are hoping to develop community growing schemes around other stations on the Severn Beach Line, creating a series of accessible community food hubs.

How can community rail increase its impact on biodiversity?

As highlighted in this report, community rail partnerships and groups across Britain are making an increasingly positive contribution to biodiversity and the natural environment. The movement has a rich history of community gardening projects and community engagement, and while improved biodiversity has sometimes been a happy by-product of these cornerstone activities, partnerships and groups are now consciously thinking about the impact they can make in this rapidly developing area. If the biodiversity crisis is to be reversed, everyone will need to play their part, and community rail is well-placed to assist with local recovery efforts and a move towards biodiversity gain.

All over the network, community rail partnerships and groups are creating new areas to nurture greater biodiversity and wildlife, or enhancing existing areas to ensure they offer a diverse range of species. These activities also bring social value, bringing people together and improving the long-term wellbeing and resilience of individuals and communities. They raise awareness of the importance of the natural environment and the need to protect it and help to connect people with the huge variety of life on their doorstep, creating a positive feedback loop.

This final section considers the opportunities for community rail, working with rail industry and wider partners, to increase the movement's positive impact on biodiversity. Some are practical suggestions to assist with the planning and delivery of projects, and others relate to maximising the engagement and reach of projects, as community rail continues to grow (in more ways than one!)



East Grinstead Station

For community rail partnerships and groups:

- **Get clued up on enhancing biodiversity** – Be aware that while the two are certainly connected, doing gardening and enhancing biodiversity, are not always the same. Community gardening projects, however small, can undoubtedly contribute to biodiversity, but it is not a given. Plan and deliver projects in ways that avoid harm to wildlife and build in ways of working and specific elements that support biodiversity gain, such as following organic gardening principles and providing diverse wildlife habitats;
- **Consider what wildlife is there already** – Before starting on any gardening or outdoor project, whether biodiversity-related or not, look at the environment you are working in and consider, from a wildlife perspective, what is already there. For example, what might look like an overgrown thicket may be a haven for all sorts of species and losing such an area at the expense of a manicured lawn or flower display could be detrimental. Try to strike a balance between what looks tidy and attractive and what offers food and shelter for wildlife;
- **Remember that every little helps** – You can improve biodiversity with just hanging baskets, window boxes, or a small herb garden, but also don't be afraid to think big. Whatever your space, think how you could make the best use of it for people and nature;
- **Provide homes and space for wildlife** – Make your site as attractive as possible to wildlife, by offering a range of habitats. As space allows, and in consultation with both rail industry partners and local wildlife/conservation experts, consider pollinator-friendly plants, trees, shrubs and hedges, ponds and wetland areas, and wildflower meadows;
- **Adopt sustainable, organic practices** – Across your station gardening and outdoor projects, look at how you can minimise energy use and water consumption, go peat and pesticide-free, and use waste/recycled materials, such as for planters;

- **Draw on local wildlife expertise and align with local efforts** – Research and connect with local organisations and groups working to enhance biodiversity and protect wildlife, to draw on their expertise, share/gain ideas, pool resources, and align with wider efforts in your area, e.g. to conserve endangered species. Ask for input on what will work in your area and how you can work together;
- **Combine efforts on local engagement** – There is a wealth of third sector organisations whose mission is to enhance local environments and support wildlife. As stations are public-facing sites, partners such as environmental charities and wildlife trusts may be glad to use them to showcase activities. Some have local groups running activities such as bird and bat walks, insect safaris, and other local engagement that could be linked with local stations. Research what’s in your area, and discuss opportunities for ongoing partnership working;
- **Facilitate volunteering, involvement and health and wellbeing benefits** – Get more people involved, promoting the volunteering, engagement and educational opportunities offered via biodiversity-related projects. Emphasise the physical, mental health and social benefits, from the joy of being outdoors, social connections, skills development, and the feelings of pride and enjoyment. This may also help with accessing funding or further partner support;

- **Involve young people, families and people of different ages and backgrounds** – This could be in planning and delivering projects, e.g. working with schools or Cubs/Brownies to fill and care for planters or build bug hotels, and making green spaces attractive and interesting to diverse groups once complete and encouraging use, e.g. adding and promoting nature trails and guides;
- **Help people learn about sustainability** – Consider how your biodiversity projects can connect people with nature and raise awareness about sustainability in a wider sense. Could you encourage and enable people to live more wildlife-friendly and sustainable lifestyles, such as by reducing waste, eating local produce, adopting wildlife-friendly organic gardening methods in their own gardens, and using green travel modes like rail.



Driffield Station garden

Meldreth Station



For rail industry and other partners:

- **Treat communities as partners in biodiversity initiatives** – Include community rail partnerships and station groups as meaningful partners in planning and implementation of industry-led biodiversity projects (or where these don't exist work with other community groups and/or Community Rail Network to forge links). Work with the movement and other local partners to maximise community involvement and tap into local knowledge, and provide industry expertise, tools, and resource (especially tapping into work taking place anyway or corporate volunteering schemes) to upskill local groups on biodiversity;
- **Support community rail groups to monitor and assess their impact** – Work with community rail partnerships and groups to support them to use tools/systems to help monitor changes in biodiversity, to allow them to see the impact of their activities, and, hopefully, their contribution to biodiversity net gain. Alongside rail specific audits and data collection, e.g. by Network Rail, encourage community rail groups to add data to national records such as the National Biodiversity Network Atlas;
- **Understand local needs and priorities** – Use the knowledge and position of community rail to hone in on wants and needs of communities around individual stations. Engage positively with communities to understand how biodiversity projects can support those, e.g. fulfilling a need for more communal green spaces, caring for specific animal/plant species synonymous with the area, enabling engagement with young people or groups disconnected with rail;
- **Involve station users and the wider public** – Work with community rail and other local groups to promote interactions between biodiversity projects and station users and engage the public as much as possible, e.g. adding signs encouraging people to pick their own produce, providing information boards or artwork explaining local flora and fauna, offering ideas on how to care for nature and details of how to get involved locally;
- **Align with local biodiversity initiatives** – By joining forces with larger, embedded initiatives, and partnering with local conservation groups, projects can make a greater impact. For example, the 'Buzzing Stations' concept was a natural extension to the Bumblebee Conservation Trust's 'Pollinating the Peak' project, which already incorporated 'Buzzing' Communities, Schools, and Tourism. The WildEast movement was also an established movement before Greater Anglia and its station adoption groups became involved to pledge station land to the scheme;
- **Develop stations as 'beacons of sustainability'** – Look at how green messages and sustainable practices can be amplified via information at the station, project communications and local engagement. What take-home tips and advice might help people live more sustainable lifestyles and create whole communities that care for local wildlife? Again, connecting with local conservation groups alongside working with community rail can help bring a range of activity and involvement that will inspire a wide range of people.

The Friends of Buxton Station



Potential partners:

There are many organisations who can assist with rail-related biodiversity projects. The list below is not exhaustive, but includes several third sector bodies whose missions involve biodiversity enhancement and nurturing wildlife habitats.

Community Rail Network – we can provide support, advice, and potential funding for biodiversity-related and other community rail projects. Visit our [website](#), and for organisations wishing to consult or work with community rail, you can view a map of our members [here](#).

Rail Delivery Group – ideas and resources linked to biodiversity can be found in RDG’s [Sustainable Stations](#) guide.

Network Rail – Network Rail has a vast range of resources and guidance for staff members linked to [biodiversity](#). This includes practical guides that may prove useful to community rail groups, including a [railway sustainability design guide](#) and a series of ‘[toolbox talks](#)’.

Train operating companies – operators may be able to offer support and/or resources for biodiversity projects, and some offer practical guidance for station adoption groups, such as Northern’s [planting guidelines](#).

RSPB – the largest nature conservation charity in the country, [RSPB](#) has a network of more than 140 local groups across the UK. They offer a host of advice on [wildlife-friendly gardening](#), and activities to engage [young people and families](#) with nature.

The Wildlife Trusts – a grassroots movement made up of 46 Wildlife Trusts, more than 850,000 members and 35,000 volunteers work with [local trusts](#) to enhance nature across the UK. The [charities](#) offer a huge range of resources on [supporting wildlife](#) and creating habitats.

The Tree Council – a charity and umbrella body caring for trees and the future of the planet. The [Council](#) provides details of tree warden-led [local networks](#) across the UK, guidance on [protecting local trees](#), and resources aimed at [schools](#) and young people.

The Bee Friendly Trust – the [Trust](#) works with community [rail](#) partnerships and station groups across Britain to install bee friendly spaces, and offers useful practical guides on creating a [wildlife garden](#), building [bug hotels](#), and pollinator-friendly planting.

The Conservation Volunteers (TCV) – bringing people together to create, improve, and care for green spaces, [TCV](#) supports [community groups](#) across the UK. They offer [resources](#) including activity packs, how-to-guides, and videos to help people make the most of the nature on their doorstep.

RHS – the [RHS](#) offers a huge array of [community gardening resources](#) includes guidance on how to: [transform disused spaces](#), such as station platforms, how to make areas [wildlife friendly](#), and how to establish and develop [community gardens](#), [community food gardens](#), and [sensory gardens](#).

Incredible Edible – this national [network](#) offers a range of [resources](#) and [how-to-advice](#) linked to food-growing and biodiversity projects, including practical horticultural guidance on issues such as composting and mulching, soil and raised beds, and using perennial crops.

Buglife – devoted to the conservation of all invertebrates, [Buglife](#) offers a varied range of advice and resources, including guidance on [pollinators](#), [wildlife-friendly gardening](#), and activities to engage [young people and schools](#).

Garden Organic – a [charity](#) providing advice and expertise on all organic horticultural matters. They offer a vast range of resources in areas such as [organic growing advice](#), [education](#) and [school resources](#), and [healthy communities](#), and details of [local groups](#) across the UK.

National Biodiversity Network – a [collaborative partnership](#) created to exchange biodiversity information. Members include wildlife conservation organisations, environmental agencies, and many voluntary groups, who can submit biodiversity data to the [NBN Atlas](#) online recording tool.

End notes:

1. <https://www.nationaltrust.org.uk/features/what-is-biodiversity>
2. <https://royalsociety.org/topics-policy/projects/biodiversity/why-is-biodiversity-important/>
3. https://ec.europa.eu/environment/nature/biodiversity/intro/index_en.htm
4. <https://www.uu.nl/en/organisation/green-office-utrecht-university/why-is-biodiversity-important>
5. https://ipbes.net/sites/default/files/2020-02/ipbes_global_assessment_report_summary_for_policymakers_en.pdf
6. <https://publications.parliament.uk/pa/cm5802/cmselect/cmenvaud/136/136-report.html>
7. <https://ec.europa.eu/research-and-innovation/en/horizon-magazine/nature-and-climate-crises-two-sides-same-coin>
8. <https://ec.europa.eu/research-and-innovation/en/horizon-magazine/climate-change-and-biodiversity-loss-should-be-tackled-together>
9. <https://www.theguardian.com/environment/2021/oct/10/nearly-half-of-britains-biodiversity-has-gone-since-industrial-revolution>
10. <https://www.nhm.ac.uk/discover/news/2019/october/the-state-of-nature-41-percent-of-the-uks-species-have-declined.html>
11. <https://www.local.gov.uk/pas/topics/environment/biodiversity-net-gain>
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28. <https://bmcpublichealth.biomedcentral.com/articles/10.1186/s12889-017-4561-8>
29. <https://disability-equality.org.uk/gardening-and-wellbeing/>
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34. <https://www.raildeliverygroup.com/about-us/publications/12802-2021-04-sustainable-stations-best-practice-guide/file.html>
35. <https://communityrail.org.uk/wp-content/uploads/2021/09/Sustainable-development-report-FINAL.pdf>

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About Community Rail Network:

Community Rail Network is dedicated to supporting community-based groups and partnerships that connect their community with their railway and deliver social benefit. Members can access operational support, training and development, written resources, networking opportunities, and advice on good practice within all aspects of community rail.



For further information, visit communityrail.org.uk.

About Rail Delivery Group:

The Rail Delivery Group (**Rail Delivery Group**) brings together the companies that run Britain's railway into a single team with one goal - to deliver a better railway for you and your community. RDG continues to work with Community Rail Network to further the case for community rail activity and support for it, as well as improving train operators' knowledge of how the community role can help them and the communities they serve through practical examples.



For information, see railandeliverygroup.com.



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