

Being responsible

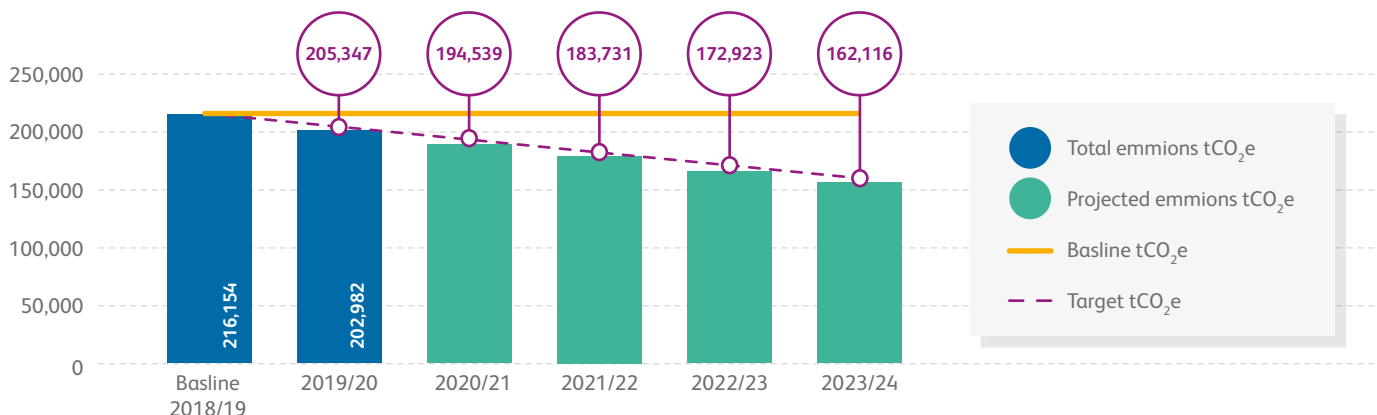
This year we have done significantly more to reduce Network Rail’s impact on the environment and support sustainability across the railway. This includes the decarbonisation and sustainable land use programmes, and developing a new environmental sustainability strategy which will set out our ambitions and targets for Network Rail up to 2050.

Low emission railway

Network Rail’s carbon reduction performance continues to improve. We have a challenging target of 25 per cent reduction in CO₂e was set for Control Period 6 (CP6), and the year one target of reducing emissions by five per cent has been exceeded, achieving a six per cent reduction. Improvements in data are enhancing our understanding, and a rebaselining activity has been carried out.

This year saw the start of a long-term decarbonisation programme that aims to develop and push forward plans for integration of renewable energy generation, energy storage and other carbon reduction initiatives such as moving Network Rail’s road vehicle fleet to ultra-low emission vehicles by 2035. At the same time, we have adopted ‘science-based’ targets for reduction of our scopes one and two (our own operations) carbon emissions, and will be developing scope three targets, setting out our pathway to net zero emissions by 2050 at the latest. This work will mean Network Rail can support delivery of a net-zero transport system as part of the Government’s forthcoming Transport Decarbonisation Plan, minimising our carbon emissions and maximising offsetting opportunities presented by our large estate. These targets are supported by a strategy and programme of works which are being progressed through the decarbonisation programme.

Network Rail actual and forecast scope 1 and 2 CO₂e emissions for CP6



Performance against baseline 6.1 per cent improvement
 Performance against target 1.1 per cent better than target

Our reporting against the new Streamlined Energy and Carbon Reporting (SECR) requirements are set out on page 57.

Air quality

Diesel trains and dust emissions on our network contribute to a risk of poor air quality for railway users, workers and neighbours. The risk of poor air quality is elevated in our more enclosed stations and depots primarily due to the

presence of diesel trains. To date we carried out air quality monitoring in nine of the covered stations that we manage to identify poor air quality. Where poor air quality has been identified, action plans have been put in place locally to tackle the problem. For example, at Birmingham New Street, an enhanced ventilation system was installed to remove exhaust gasses from diesel trains. In Scotland, the ScotRail Alliance has introduced policies to reduce Diesel Engine Exhaust Emissions and idling times for High Speed Trains. Network Rail will be carrying out further monitoring

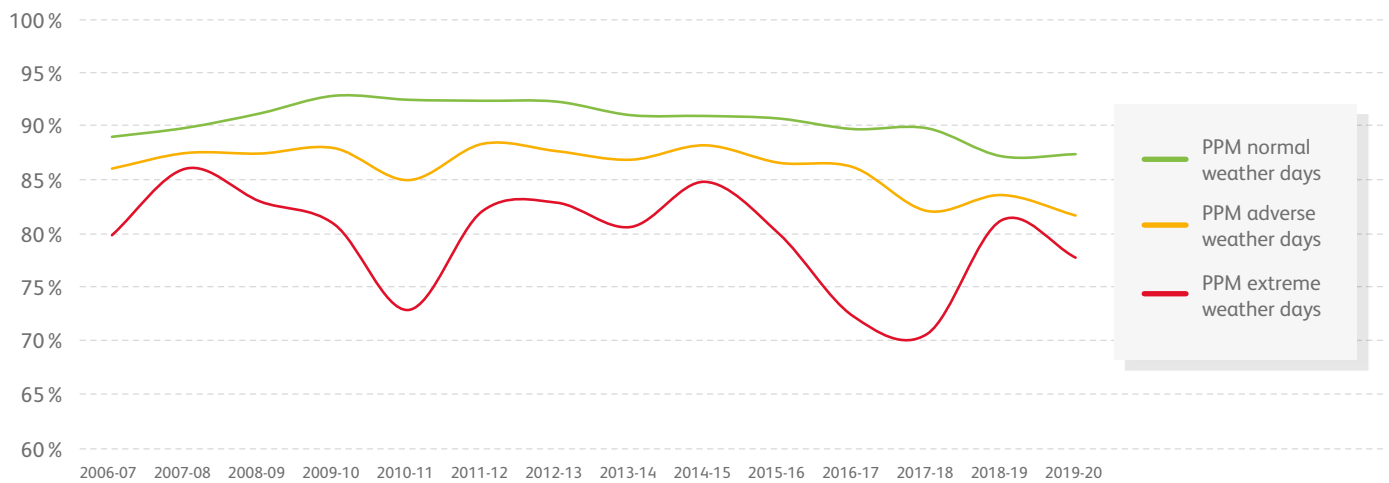
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at its managed stations and depots to further assess air quality levels. A guidance note and standard will be produced for managing air quality and a plan to ensure all our managed stations undertake air quality monitoring.

Weather and climate change

The hottest recorded day in the UK in July 2019 brought widespread disruption to the railway as did the significant flooding across the country in the autumn and winter. The dry summer combined with the wet winter resulted in multiple landslips which have caused major disruption, particularly in Southern region. The graph below provides an overview of annual variations in Public Performance Measure due to impacts from weather events since 2006.

Public Performance Measure 2006-2020



Network Rail is developing a framework for integrating management of climate change within business as usual activities. Key achievements this year included: publication of company-wide guidance defining the climate change scenarios to be used in business planning; work with the chief engineer’s asset teams to assess climate change risk and develop action plans; support to routes on CP6 weather and climate change plans; collaboration with operational weather management teams on the seasonal challenge steering group and industry weather resilience review. Work has started to develop sustainability and climate change adaptation planning assumptions for Control Period 7.

The weather and climate change enterprise risk register has been raised to an industry-wide level zero risk in recognition of the significant impact weather has on performance and passengers.

This year has seen the creation of the industry wide climate change adaptation working group involving train operating companies, government and regulators; support to the national infrastructure commission ‘resilience study’ and the committee on climate change national ‘third climate change risk assessment’ as well as regular engagement with transport and other infrastructure operators on climate change adaptation.

Biodiversity

Following John Varley’s independent report to the DfT on Network Rail’s management of lineside vegetation, Network Rail has initiated the sustainable land use programme that aims to improve the way we manage our lineside habitats by delivering no-net biodiversity loss by 2024 and biodiversity net gain by 2035.

Progress over the last year includes the development of an ambitious vision supported by a biodiversity action plan which together set out our approach to managing our estate. Once implemented, our estate will support high-

quality and biodiverse habitats which support the safe and efficient operation of the railway. We have developed a new methodology for baselining our biodiversity – this will use remotely-sensed data to create a network-wide map of our habitats augmented by ground-based truthing surveys and publicly available data. A demonstrator project has been set up in Kent route to trial different vegetation management and habitat creation techniques, the learning from which will be rolled out company wide. Demonstrator projects for all other regions are currently being scoped and will be set up in the next year so that each region can learn to manage vegetation for biodiversity locally.

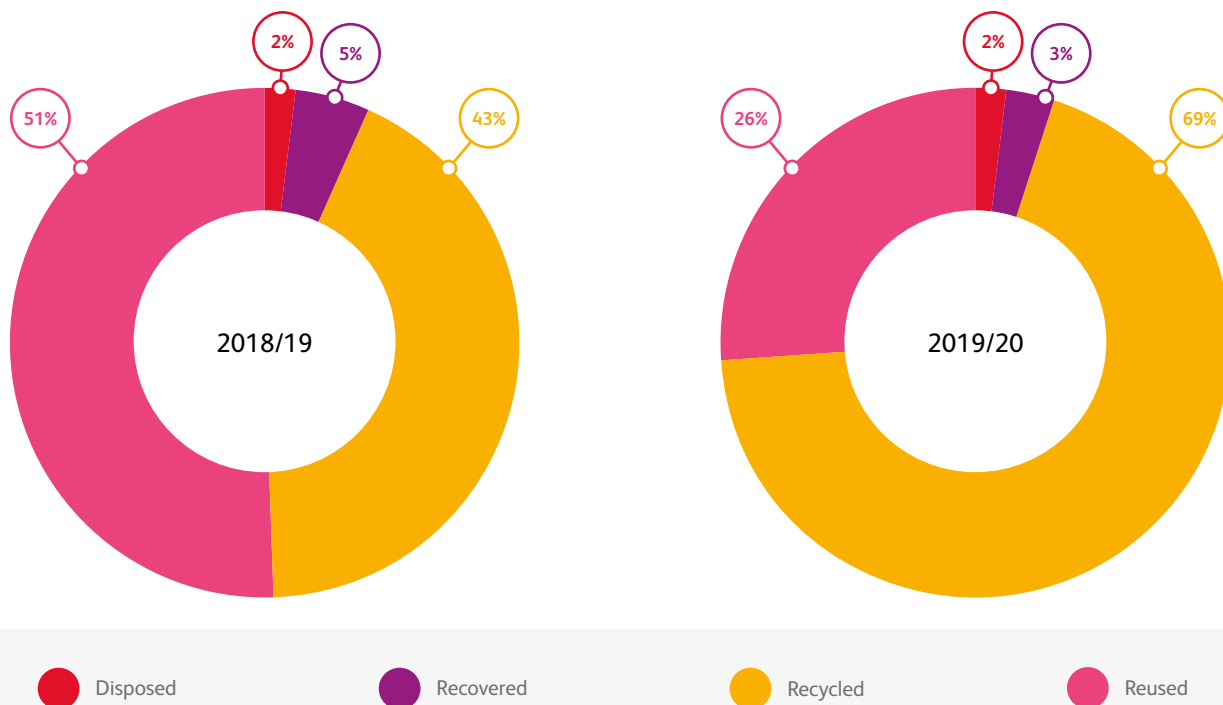
Changes have been made to our vegetation management standards and our asset management system to make it easier to manage our vegetation as an asset. Work has begun on a railway sustainability design guide – this will provide Network Rail and the wider industry with guidance on the range of options that can be used to improve sustainability on our estate. Network Rail’s Board received training from the Cambridge Institute of Sustainability Leadership to raise awareness of global sustainability

issues and to make the case for business change. This training will be rolled out across the business and augmented with more practical training, and additional resource to embed good biodiversity management at ground level. Research and development proposals are being prepared to understand how to measure sequestered carbon and the carbon-balance implications of our vegetation management practices.

➤ **Minimise waste**

Network Rail has improved its waste management performance (see charts below) in 2019/20 with a decrease in the overall volume of waste generated by 29 per cent compared to 2018/19. We have increased our recycling percentage by 26 per cent, disposal to landfill has remained stable at two per cent and recovery (energy from waste) has decreased from five per cent (2018/2019) to three per cent (2019/2020).

We have achieved 98 per cent diversion from landfill for non-hazardous waste, which is three per cent higher than our target of 95 per cent. Network Rail has excelled in our 65 per cent target for non-hazardous waste re-used or recycled with an end-of-year achievement of 95 per cent, demonstrating our successful application of the waste hierarchy to maximise opportunities to reduce, reuse and recycle our waste.



➤ **Environmental Sustainability Advisory Committee**

In October 2019, Network Rail’s environmental sustainability advisory committee was established, recognising that Network Rail has a unique opportunity to put environmental sustainability at the heart of the organisation’s strategy and to provide leadership to the wider sector.

The committee’s purpose is to identify, facilitate discussions and advise on environmental sustainability initiatives and programmes within Network Rail. The committee is instrumental in developing and endorsing an overarching environmental sustainability strategy and ambitious vision, so we can meet the needs and expectations of our staff,

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stakeholders, our passengers and freight users, and ensure we are keeping pace with wider environmental issues and addressing these appropriately.

The committee's membership consists of Network Rail Board members and is attended by various other subject matter experts (both internal and external) and the Network Rail senior leadership team.

In 2019/20, the committee met twice – in December 2019 and February 2020. These were deep dive meetings focussing on decarbonisation, air quality in our stations, and station and property initiatives. In 2020/21, the committee will discuss: biodiversity and sustainable land use, opportunities to transform our road fleet to become greener and how we will engage our supply chain in

environmental sustainability practices. Each of our regions will also present their own individual strategies to the committee.

An overarching environmental sustainability vision and strategy until 2050 is being developed, which will empower the regions and routes to develop their own action plans. The strategy will be completed in 2020/21 and endorsed by the committee.

As part of our external engagement activities, a listening exercise was begun, seeking the views and insights from relevant organisations and specialists. This exercise is still underway and the feedback received will be used to help shape the overall strategy.

Streamlined Energy & Carbon Reporting 2019/20

Description	Amounts	Units
Energy consumption used to calculate emissions		
Total Electricity used	501,251,328	kWh
Total Gas used	64,523,301	kWh
Total Fuel for company fleet	249,433,982	kWh

Emissions breakdown				Conversion Factor (kgCO2e)
Scope 1	Emissions from combustion of gas	11,900.0	tCO2e	0.18443 natural gas
Scope 1	Emissions from combustion of fuel transport purposes	61,395.0	tCO2e	2.20904 unleaded 2.59411 diesel 1.52260 LPG
Scope 2	Emissions from purchased electricity	128,119.8	tCO2e	0.25560 UK Grid mix
Total Gross CO2e based on the above		201,414.8	tCO2e	

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Intensity Metrics	Intensity Ratio	
Number of Employees	40,925	4.922 tCO2e / employee
Passenger kilometres (billions km)	66.75	3.018 gCO2e / passenger km

Methodology

We have used the EMA SECR tool which follows the GHG Reporting Protocol, populated with invoiced consumption and metered data.

Principal Energy Efficiency Measures (PEEMs)

During 2019/20 we have concentrated our efforts on collating relevant data and establishing our SECR baseline. We have devolved responsibility for utilities management to our Regional businesses to allow much closer control on a local level and in doing so we recognise that our Regional teams require the right tools and support to be able to manage their utilities use effectively. We have, therefore, sourced an appropriate reporting tool supported by correct methodology to enable our Regions to report their PEEMs in future years and to understand their impact on carbon performance.

We have commenced a major programme of work designed to accelerate carbon reduction across Network Rail. Consisting of 13 workstreams, the Decarbonisation Programme will progress activities such as metering, utilities process improvement, enhancing energy management capability, energy efficiency measures, renewable energy generation & storage, transitioning Network Rail’s road fleet to electric / Ultra-Low emission vehicles and low carbon design. We will report progress on these initiatives in future reports.

We have also adopted Science Based Targets for our Scope 1 & 2 emissions and are developing our Scope 3 targets, to set our trajectory to net zero by 2050. We expect to publish our Science Based Targets in Summer 2020, following approval of the Scope 3 strategy.

Social performance

Through our social performance agenda we want to deliver value to communities and neighbours, to passengers, the economy, and our people.

For the 5 year funding period, our charitable strategy takes the theme of homelessness. Network Rail is partnering with a number of charities under a banner of ‘Routes out of Homelessness’ and we aim to engage our workforce and lead the industry on how we support and engage in the agenda.

Network Rail is committed to doing business in a responsible way, which includes a commitment to do all that we reasonably can to prevent all forms of modern

slavery and human trafficking in any part of our business and our supply chains. The steps taken to prevent modern slavery and human trafficking are described in our modern slavery and human trafficking statement, which can be found on Network Rail’s website: www.networkrail.co.uk. Network Rail does not tolerate any form of bribery in its business; our Anti-Bribery policy is also available to view on the website.

Working with small and medium-sized enterprises (SMEs)

This year we published our plan for how we work with SMEs. We have created champions in each region to help make

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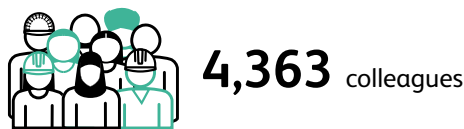
our processes more inclusive and accessible: from this year we will have at least 10 per cent of our buying decisions based on social and environmental value.

We paused the 2019/20 indirect SME spend data collection exercise due to Coronavirus. This data will now be gathered over June/July 2020 for publication to Department for Transport (DfT) in August 2020.

An early indication based on direct spend data only, is that we contracted with 4,245 suppliers in the 2019/20 financial year, of which 3,113 (73 per cent) were SMEs.

Charitable giving and volunteering

Network Rail offers up to five days volunteer leave for every employee to support charities and community projects. Most (83 per cent) of our volunteers choose to support a charity, the rest for community safety, early engagement activities or community rail volunteering. Ten per cent of our staff used one or more of their volunteer leave days.



In 2019/20, £1,020,518.84 was raised through 817 bucket collections at our managed stations, averaging £1,249 per collection. During this period, around 4,000 of our employees registered on the Payroll Giving scheme raising a total of £585,904.28.

Suicide prevention

283 suicides or suspected suicides took place on Great Britain’s rail network during 2019/20 an increase of 4.4 per cent against the 271 recorded in 2018/19. The industry continues to commit resources to reduce the likelihood of suicides and to support its ‘neighbours’ in their attempts to do so as well. The industry’s suicide prevention programme is held up as an exemplar by many bodies including the UK Government.

Whilst physical mitigation measures to prevent suicide exist at many locations, at the heart of the industry’s approach to prevention is the training of its people (now in excess of 20,000) to make interventions (which totalled more than 2,000 this year), to support those in emotional crisis, and the promotion of its Small Talk Saves Lives campaign – which now reaches television and cinema audiences as well as those on social media.

In its attempt to understand why people take their lives on the railway the industry has and continues to invest in ground-breaking anthropological, academic and pracademic research. The outputs are shared widely with other agencies to support their work.

The British Transport Police and Samaritans continue to support the industry in this area whilst new partners will join the programme in 2020/21 to complement and augment their activities.

Community safety and level crossings

Keeping communities safe

Our community safety campaigns to reduce trespass on the railway across Great Britain intensified again this year through the Trespass Improvement Programme. Working with industry partners, the You Vs Train campaign targeted hotspots through powerful partnerships with StreetGames, the English Football League Trust and LearnLive. Together with local engineering solutions like platform-end barriers, we successfully shifted the trespass patterns at many hotspots, enabling activity to move on to other critical locations. In schools, our award-winning partnership with LearnLive has now reached over five million youngsters, over half the school-age population. Changing societal attitudes requires a long-term approach, reaching all age groups. We continued to promote family conversations about safely using the railway using the innovative ‘Stay Safe with Thomas’ publications featuring Thomas the Tank Engine.

Level crossings

Level crossings remain one of the greatest risks to public and passenger safety on the rail network. In December 2019 we launched Enhancing Level Crossing Safety 2019-2029, our long-term strategy for improving level crossing safety. In 2019/20, working with local communities and private landowners, we closed a further 77 level crossings as the most effective way to improve safety. This takes the total number of closures since 2009 to 1,253. We further improved safety through level crossing upgrades and wider deployment of technology to provide an active warning to users. We have developed a series of toolkits to support community education – helping people understand the risks and how they should safely use crossings. Continuing to install more red light safety equipment, we enabled more effective enforcement, re-training and holding to account those who flout road traffic legislation. We developed proposals for the next generation of mobile enforcement vehicles too. We continued to work with ORR and DfT to improve signs for footpath, bridleway and user-worked level crossings, but progress is not as swift as we would like, delaying response to several RAIB recommendations. New signage for user worked crossings has been agreed with all parties. However Parliament has not yet debated the changes required to the Private Crossings (Signs and Barriers) Regulations 1996.