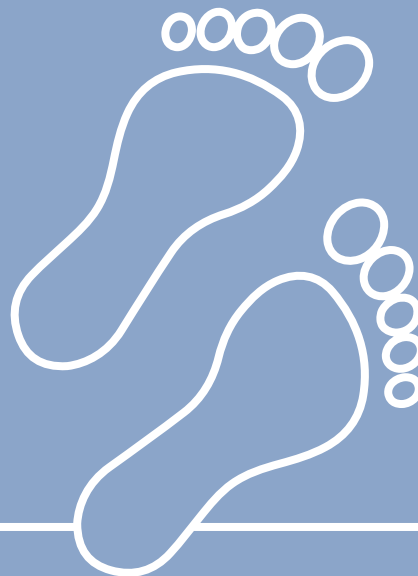


# Environment

Taking action on the environment is essential to create great places to live for our customers, reduce risks and costs to our business and help protect the wellbeing of communities today and in the future. Climate change is included as a key risk in our consolidated Group Risk Register.

Our new environmental strategy is outlined on pages 5 and 6 and our approach to governance on pages 29 and 30.



## 2020 highlights

- Developed our new environment strategy
- Our carbon reduction target has been approved by the Science Based Target initiative
- Began new partnerships with Buglife and Hedgehog Street to help us support nature on our sites
- 30% reduction in our carbon footprint intensity (scope 1 and 2) since 2013

## Plans and targets

- Achieve our science-based carbon reduction target: reduce operational carbon emissions intensity by 36% by 2025; reduce carbon emissions intensity from our supply chain and customer homes by 24% by 2030
- Increase natural habitats by 10% on new sites from 2023 and include our priority wildlife enhancements from 2021
- Cut our waste intensity by 15% by 2025 and use more recycled materials. By 2022, publish a 'towards zero waste' strategy for our sites



## UN SDG: Goal 13 – Climate Action

Take urgent action to combat climate change and its impacts.

We want to play our part in tackling climate change by reducing our carbon emissions in line with climate science. Our new carbon reduction target has been approved by the Science Based Target initiative as consistent with reductions required to keep warming to 1.5°C, the most ambitious goal of the Paris Agreement.

## Environmental management and governance

Our Health, Safety and Environmental Management System (EMS) covers all site activities and helps us to keep noise, dust and disturbance to a minimum, to prevent pollution incidents and to protect biodiversity. It requires all operational sites to carry out mandatory environmental checks and to have a Site Specific Environmental Action Plan (SSEAP). Site management teams are trained on our EMS. The health and safety elements are described on page 15.

Employees, contractors and site operatives can use our Environmental Advice Line to get advice or, in the case of an incident, obtain specialist environmental support immediately.

We support the principles of the Considerate Constructors Scheme (CCS) and over 1,000 of our sites have registered with the CCS since the scheme began in 1997.

## Internal and external review and auditing

Our environmental management approach is subject to regular review and auditing. This includes:

- Annual internal audit of our EMS by our regional Health, Safety and Environment (HSE) Advisers.
- A review of environmental checks and SSEAP during monthly site visits by local management team directors, including unannounced spot checks.
- Independent, unannounced HSE audits at every operational site at least once a month by our external site HSE advisers.

## Our Sustainability Champions

We have a Sustainability Champion in each of our regional businesses. They help us engage colleagues on resource efficiency and monitor progress at the local level. They use our resource portal to track performance, assess the costs of resource use and waste disposal and compare progress with other parts of the business.

Each Champion has agreed a resource management action plan for their regional business. We held regular webinars for the Champions in 2020 on a range of topics. Champions were able to present their work, hear from others and share experiences.

## Energy and climate change

Climate change is the most significant global environmental threat and we are determined to play our part in tackling it.

In early 2021, we published our ambitious science-based carbon reduction target which has been approved by the Science Based Targets initiative (SBTi). This covers emissions from our operations (1% of total), supply chain (59% of total) and homes in use (40% of total). The SBTi has confirmed that our operational target is consistent with reductions required to keep warming to 1.5°C, the most ambitious goal of the Paris Agreement. Our scope 3 goal meets the SBTi's criteria for ambitious value chain reductions, in line with current best practice.

We support the Task Force on Climate-related Financial Disclosures, see our Annual Report and Accounts page 44.

Further information on our approach to climate risk is included in our submission to CDP Carbon, which we publish on our website. We received a score of B in 2020 (2019: B).

We have achieved the Carbon Trust Standard for our overall approach to carbon management, including our policy, strategy and verification of our data and processes. We are the first homebuilder to achieve this.

See [www.taylorwimpey.co.uk/corporate/sustainability/carbon-emissions-and-reporting](http://www.taylorwimpey.co.uk/corporate/sustainability/carbon-emissions-and-reporting)

### Scenario analysis

To better understand the long term impacts of climate change we carried out scenario analysis during 2020 through workshops run by the Carbon Trust. These looked at climate change scenarios that could have a material financial impact on the business including risks and opportunities. Workshops were attended by members of our GMT and senior functional management.

The analysis considered potential impacts on the housebuilding sector and covered the range of responses from a relatively orderly transition aligned with the Paris Agreement, to insufficient action and a failure to act, leading to climate breakdown and chaos. We focused in particular on a 'disorderly transition' scenario where despite

international, national and regional action, not enough is done quickly enough to limit the worst impacts of climate change. In this scenario the Paris Climate Agreement goals are not met in time.

The analysis identified significant risks and substantial opportunities for Taylor Wimpey in four areas – see table below.

### Reducing energy and carbon in our business

We took a number of steps to reduce energy use and carbon emissions from our operations in 2020, although progress was disrupted by the pandemic.

We renewed our electricity contract and now purchase 100% renewable electricity for new sites during construction (Temporary Building Supplies), offices, show homes, sales areas and plots before sale. This is around 58% of our total electricity consumption.

We are exploring energy-efficiency improvements for new site portacabins and began trials at two sites. The first trials identified practical challenges and we will be looking for improved solutions in 2021. We are also exploring the potential for energy-efficient retrofits of our existing stock of cabins.

We reviewed our approach to fuel management and are introducing improvements to reduce costs and emissions. This includes encouraging use of alternatives to diesel generators.

We reviewed our car fleet policy and are introducing a new flexible car benefit scheme, see page 20. We also ran a cycle week campaign and raised awareness of our cycle to work scheme.

### Tackling emissions in our value chain

We are working with suppliers to reduce the carbon impact of our value chain. This includes designing our homes to be energy-efficient (see page 10), selecting materials with lower embodied carbon such as timber frame (see page 20), reducing waste and piloting off-site construction techniques (see page 10).

## Long term impacts of climate change

Climate change will affect where and how we build our homes with increased risks from flooding and over heating. Increased regulation on climate change will affect our business and, with almost three-quarters of the UK's local authorities declaring a climate emergency, we expect additional requirements through the planning process. There will be greater demand from customers for low carbon living. Our own customer research this year showed that 98% of customers are taking at least one action to live more sustainably and 43% consider environmental performance an important factor when choosing a new home.

We also engage suppliers through the Supply Chain Sustainability School (SCSS), (see page 22). As part of the SCSS Carbon Group, we are working on a project to collect energy and carbon data from construction suppliers.

We received a Supplier Engagement rating of A- from CDP for our approach to engaging suppliers on climate change.

### Scenario analysis – key findings

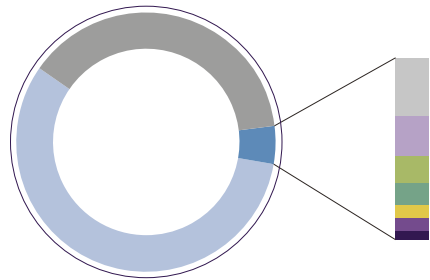
	Risks	Opportunities
<b>Regulation</b>	<ul style="list-style-type: none"> <li>– Forthcoming regulation on home energy use and electric vehicles</li> <li>– Stricter planning requirements for flood resilience</li> <li>– Increased fuel taxes</li> <li>– Increased insurance premiums</li> </ul>	
<b>Customers and stakeholders</b>	<ul style="list-style-type: none"> <li>– Shifts in customer preference and increased expectations</li> </ul>	<ul style="list-style-type: none"> <li>– Increased preference for energy-efficient, low carbon homes</li> <li>– Potential for cheaper green mortgages for new build homes</li> </ul>
<b>Physical</b>	<ul style="list-style-type: none"> <li>– Over-heating in homes</li> <li>– Supply chain disruption from severe weather</li> <li>– Production disruption from severe weather</li> </ul>	<ul style="list-style-type: none"> <li>– Warmer, drier summers allowing increased production</li> </ul>
<b>Technology</b>	<ul style="list-style-type: none"> <li>– Changes in house design to accommodate technology, such as air conditioning</li> </ul>	<ul style="list-style-type: none"> <li>– Placemaking enhancements, e.g. through greater use of Sustainable Urban Drainage Systems (SUDS) features</li> <li>– Increased use of lower carbon technology and materials</li> </ul>

### Performance in 2020

We have achieved an absolute reduction in scope 1 and 2 emissions of 39% since 2013, and reduced our carbon emissions intensity by 30% since 2013.

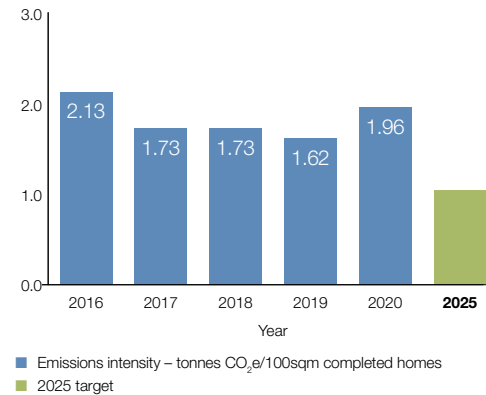
The pandemic affected our year on year performance with absolute emissions falling but emissions intensity increasing. While we completed less floor space than the previous year, we continued to use energy on our sites even when construction was halted, for example to run IT systems, street lighting and pumping stations. On return to sites, homes took on average longer to complete and sell due to the need for social distancing measures and other factors meaning that energy use per plot increased. We expect to see a downward trend in 2021 as we return to more normal operating conditions and implement our environmental strategy.

### Our scope 3 emissions



■ Use of sold products (the homes we build)	<b>38.47%</b>
■ Purchased goods and services	<b>56.83%</b>
■ Other	
■ Upstream transportation and distribution	<b>1.52%</b>
■ End of life treatment of sold products	<b>1.03%</b>
■ Employee commuting	<b>0.70%</b>
■ Waste generated in operation	<b>0.57%</b>
■ Business travel	<b>0.34%</b>
■ Downstream leased assets	<b>0.31%</b>
■ Fuel and energy related activities	<b>0.23%</b>

### Greenhouse gas emissions intensity (scope 1 and 2 emissions per 100 sqm of completed homes)



### Giving nature a home on our sites

We want to improve access to nature for customers and communities by regenerating the natural environment on our sites. Development can contribute to biodiversity loss but with the right approach, we can use our sites to protect, enhance and even increase biodiversity. Our new target is to increase natural habitats by 10% on new sites from 2023 and include our priority wildlife enhancements from 2021.

In 2021, we will be partnering with Hedgehog Street, a campaign by the British Hedgehog Preservation Society and People's Trust for Endangered Species, to introduce hedgehog highways on all new sites. We are also working with Buglife, to support their B-Lines campaign and ensure our sites include pollinator and wildlife friendly planting. We will be piloting our first B-Line site in 2021.

Our environmental strategy builds on our existing approach to protecting biodiversity. This includes an ecological impact assessment for all sites, that identifies protected species or habitats. We use ecologists' reports to identify measures needed and these recommendations are embedded into the Site Specific Environmental Action Plan, part of our Environmental Management System. We already include an estimated 2,000 biodiversity

enhancements on our sites every year, around eight per site and this will increase as we roll out our strategy.

During 2020, we implemented a biodiversity net gain approach for a number of planning proposals in Warwickshire and will be monitoring the results and sharing lessons learned.

Our Home for Nature Toolkit includes practical ideas, costs and guidance to help our teams implement appropriate biodiversity enhancement measures. Our Guide to Green Infrastructure incorporates recommendations from the Wildlife Trust and helps our teams to use green infrastructure (such as sustainable drainage and green spaces) to benefit biodiversity, create a strong sense of place, support water management and reduce flood risk.

### Resources and waste

We aim to use fewer and more sustainable resources. Our Waste and Resources Working Group oversees our approach and includes senior managers from our production, procurement and sustainability functions, alongside operational staff and Sustainability Champions.

### Waste and resource efficiency

Our new target is to reduce waste intensity by 15% by 2025. We engage our teams on waste reduction through: our Waste Dos and Don'ts guide and induction process for site teams; a waste league table for our regional businesses; 15% of the potential bonus for Site Managers is linked to performance on waste reduction. Waste is now one of the KPIs included in our performance dashboard for business unit management teams. We have set waste reduction targets for each regional business.

The pandemic and lockdown affected our year on year performance with absolute waste volumes falling but waste intensity increasing to 7.9 tonnes of waste per 100 sqm of build (2019: 6.5). We believe the increase in intensity is due to factors including: improvements in our data collection process and materials being damaged as a result of extended storage during site shutdowns. Reversing this trend will be a priority in 2021.

In 2020, 97% of our construction waste was recycled.

Steps we are taking to reduce waste and improve resource efficiency include:

- **Process changes** – For example, specifying timber and plaster board sizes to suit our configurations. We are trialling a reusable alternative to temporary decking (used to prevent accidents by covering stairwells during construction).
- **Paint cans** – We are partnering with two suppliers to reduce waste from used paint pots. These are either washed and reused or recycled into new pots. We have made this a focus for our Sustainability Champions and a requirement for contractors. During 2020, over 19,400 paint pots were returned for reuse or recycling from our sites, reducing waste to landfill.
- **Pallets** – We use a pallet repatriation service through which 71,916 pallets were picked up from our sites in 2020 (2019: 94,984). This represents around 1,300 tonnes of wood (2019: 1,710). 53% of these pallets are suitable for, and sent for, reuse.
- **Packaging** – A major source of waste on our sites. We are working with Valpac, Reconomy, Barratt Developments, Bellway, Zero Waste Scotland and the Supply Chain Sustainability School to better understand packaging waste streams and work with suppliers to achieve reductions.

We are piloting an automated system for tracking material deliveries and waste removals at one of our sites. We hope the system can reduce waste and costs by improving data accuracy while reducing time spent on admin by project teams.

### Materials

The materials we purchase have a significant environmental impact from extraction and processing, to manufacturing and transport. We want to work with suppliers to reduce these impacts and promote the use of recycled and renewable materials. Integrating sustainability into our sourcing strategy can also improve resilience to future resource shortages and price rises.

We already source many materials with lower embodied carbon and energy. Examples include:

- Timber frame can have a significantly lower carbon footprint than traditional 'brick and block' building techniques due to the materials and use of off-site construction techniques. We are currently at 18.6% of completions from timber frame and aim for 20%.
- Our glass mineral wool insulation supplied by Knauf, is made from recycled glass bottles through Knauf's partnership with waste management company Veolia. Around 6 million bottles were used to create the insulation for our homes in 2020.
- Recycled uPVC makes up over 60% of the material used in our window frames and cavity closers supplied by Eurocell, our main window frame supplier that supplied almost half our window frames in 2020.<sup>1</sup>
- Use of recycled aggregates and recycled bricks and blocks on several of our sites supplied by Sheehan.

Our next step is to better understand the footprint of the different materials and products we use. We are conducting a life cycle assessment on two of our developments, calculating the environmental impact using Environmental Product Declarations for the key materials used on site.

A team of our graduates undertook a research project to assess the use of recycled materials on our sites.

1. This is based on calculations by Eurocell for the window frames and cavity closers supplied to us for our Gosford house type. These indicate that over 60% is manufactured from recycled uPVC (unplasticized polyvinyl chloride), and less than 27% virgin uPVC, with the remainder being aluminium, steel and other components.

## Water

Many areas of the UK already experience water stress and climate change will exacerbate this. We aim to reduce water use in our operations and we integrate measures to protect water quality during construction and to manage surface water and reduce flood risk on our completed developments. We also help customers to reduce water use in the home (see page 10).

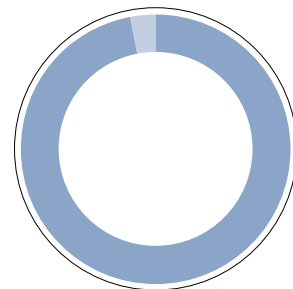
The pandemic and lockdown affected our year on year performance with overall water use falling but water intensity increasing. While we completed less floor space, we continued to use water on sites even when construction was halted, for example to water lawns during hot weather. On return to sites, homes took on average longer to complete due to social distancing measures and other factors meaning that water use per plot increased. We expect to see a downward trend in 2021 as we return to more normal operating conditions and implement our new environment strategy.

We received a B rating from CDP Water (2019: B).

## Air quality

Air quality is an increasingly high profile issue and one which can impact customer health and wellbeing. We aim to improve our understanding of air quality on sites and in homes. We will be running a pilot in 2021 with Building Research Establishment (BRE) to increase our understanding of the factors that influence internal air quality and will use the findings to develop guidance for customers on how to maintain good air quality at home.

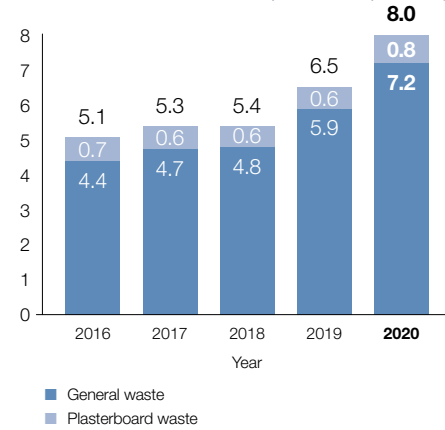
## Construction waste recycling UK



■ Waste recycled **97%**  
■ Waste sent to landfill **3%**

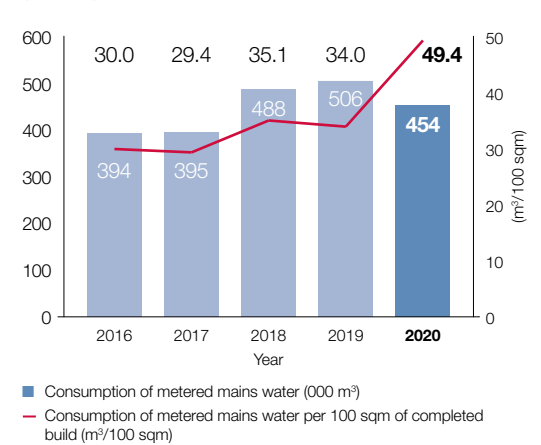
## Waste UK

(tonnes of construction waste per 100 sqm build)



## Operational water use UK

(000 m<sup>3</sup>)



## Progress against targets

Target	Progress	Achieved?
<b>Achieve a 50% reduction in our direct emissions intensity (scope 1 and 2) by 2023 against a 2013 baseline</b>	We have achieved an absolute reduction in (scope 1 and 2) emissions of 39% since 2013, and reduced our carbon emissions intensity by 30% since 2013. This target has now been superseded by our new science-based carbon reduction target.	🔄
<b>Develop and roll out our environmental strategy</b>	Our new environmental strategy is summarised on pages 5 and 6 and will be rolled out during 2021. We delayed the timing of the launch to ensure our targets reflected the requirements of the new Future Homes Standard.	✅
<b>Set a science-based carbon reduction target by the end of 2020</b>	Our new science-based carbon reduction target has been approved by the Science Based Target initiative, see page 18.	✅
<b>Review our car fleet policy to help us move towards a more efficient, lower emission fleet</b>	We reviewed our car fleet policy and are introducing a new flexible car benefit scheme. This will enable employees to have access to a new low emission car, fully maintained and provided in a tax-efficient way, including electric and ultra-low emission vehicles. Around 30% of vehicles in our fleet are now EV or hybrid.	✅
<b>Establish a set of metrics to measure biodiversity improvements on our sites</b>	The Government has yet to publish its final guidance on metrics for net gain which means we have not been able to develop our metrics. We will launch our Net Gain Process Manual in 2021 to help our regional businesses and land teams manage the risks, costs and opportunities associated with net gain.	🔄
<b>Reduce our waste intensity (tonnes per 100 sqm of build) by 10% by 2021 against a 2018 baseline</b>	Our absolute waste volumes decreased but waste intensity increased. We believe this is due to: improvements in our data collection process and materials being damaged as a result of extended storage during site shutdowns. Reversing this trend will be a priority in 2021.	❌
<b>Reduce metered water use intensity (m<sup>3</sup>/100sqm of completed floor area) in 2020 against a 2019 baseline</b>	The pandemic affected our year on year performance with overall water use falling but water intensity increasing.	❌