

Broadland Housing Association

Sustainability Assessment Report

2018

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Welcome to your 2018 sustainability report

This has been an exciting year for sustainability developments, with an increasing shift towards district heating, the notable growth of electric vehicles, and the growing recognition of waste disposal and air quality issues. The Government's Industrial Strategy, Clean Growth Strategy and 25 Year Environment Plan set out a high-level direction of travel and innovative funding opportunities for green growth are coming in. Here at Sustainable Homes we are therefore delighted to see SHIFT landlords leading the way and using SHIFT to inform and guide progressive action.

This year you will notice that there have been some changes to the SHIFT Sustainability Assessment report. We have structured the report around key themes to improve clarity and align better with organisations' strategies and internal reporting, and have revised the design to improve readability. We hope that these changes will help to provide quick at-a-glance overviews of your performance. Additionally we have focused more time on developing indepth, tailored recommendations for your organisation to support your sustainability progress. The ultimate aim of SHIFT is to help you to improve your organisation's sustainability performance, your residents' satisfaction and your bottom line. The report provides you with a roadmap to help you achieve your sustainability goals.

There have been important changes in the SHIFT assessment process as we successfully rolled out the SHIFT online platform. As well as improving the data management process and aligning with new data protection regulations, this tool provides additional benefits for you and your organisation. You are now able to access your SHIFT assessment and sustainability performance all year round. This means that you can upload information at your own pace, streamlining the assessment process. It is also a sustainability data management tool; together with the dashboard features, you can generate performance charts and will be able to compare year-onyear performance within the platform.

This SHIFT report should be used to inform future plans and guide your sustainability actions across your stock, offices and operations. Ensure that you share your sustainability performance across your organisation, particularly the executive and communications teams.

As a SHIFT landlord you are leading in sustainability in housing and this report showcases not only your performance but how far your organisation can go. As always, we look forward to supporting you on your journey to sustainability.

Sustainable Homes team

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Executive summary

This report presents the sustainability performance of Broadland Housing Association across existing homes, offices and operations, strategy and leadership, and new builds. It spans energy and resource use, transport and travel, resident engagement, climate risk, biodiversity and responsible sourcing, thereby providing a comprehensive overview of your organisation's environmental footprint.

Broadland Housing Association was formed in 1963. The first scheme at Shipfield, Norwich, was completed in 1967 and now the Association provides over 5,000 homes throughout Norfolk and Suffolk. They provide a range of family homes, modern apartments, sheltered housing and housing with care.

In this 2018 SHIFT Assessment, Broadland has achieved Gold standard with a score of **65.98**. It scores highest out of the 40 most recent SHIFT assessments. The Sustainability Team are to be congratulated as Broadland's previous assessment in 2016 was also the highest scoring among SHIFT landlords.

Over the next sections you will see the breakdown of the score and recommendations. A snapshot of key performance areas is given below:



Throughout the report you will see your organisation's sustainability performance across key areas of your business and how it compares to that of other SHIFT landlords.

The importance of SHIFT is that it drives sustainability performance improvement – across social, environmental and economic areas. But it also means that through sustainability, reporting and benchmarking the overall performance of your business can improve. This report offers bespoke recommendations on how these improvements can be made.

Overall performance

Absolute impacts				
Environmental impact	Your performance		Progress	
CO₂ – homes	17530 tonnes	18522 tonnes	•	
CO ₂ – offices	88.92 tonnes	152.19 tonnes	•	
CO ₂ – business mileage	49.04 tonnes	45.10 tonnes	•	
Water – homes	0.56 million m ³	0.62 million m ³	•	
Water – offices	554 m ³	2556 m ³	•	
Waste – homes	1225 tonnes	888 tonnes	•	
Waste – offices	2.72 tonnes	9.05 tonnes	•	
Waste – refurbishment	20224 tonnes	171904 tonnes	•	
Adaptation to climate change – homes protected from flooding	4930 homes	1163 homes	•	
Adaptation to climate change – homes protected from overheating	3792 homes	1163 homes	-	

Gold to platinum: Focus on existing homes and people, measurement and business performance

SHIFT Platinum is achievable, but SHIFT Gold represents the very best performers nationally in sustainability. To move to the next level requires a real push in certain areas. You will need, one way or another, to ensure that you are on a trajectory to meeting long term environmental targets.

As SHIFT has demonstrated over the years, measurement and verification of your results leads to improved performance. However, even with a supportive Board or directors, it is vital to prove that what you are doing is making an impact, so finding those internal metrics to help continue to make your case is key.

This also relates to the wider business. Sustainability cannot be seen as being just for its own sake. Your actions must help to improve the business: whether in terms of financial performance, reputation, assets or customer satisfaction. Proving that you have made a significant impact will go a long way to getting your organisation to SHIFT Platinum.

Strategy and leadership

A strong sustainability strategy underpins robust environmental monitoring and performance at any organisation, by setting out a clear direction of travel in both the short and long term, as well as SMART KPIs to measure progress against. Points for this section are therefore awarded for specific, measurable, achievable, realistic and time-bound targets only, for a range of areas including energy efficiency, waste, water and climate adaptation.

Broadland's Executive Property Director is tasked with delivering their Sustainability Strategy, which was adopted by the Board in June 2017 with a regular review process. It is available to the public via their website, and includes strategic measurable targets in all but one of SHIFT's 11 criteria (A target for construction and maintenance waste was not included, but municipal waste was addressed). Moreover, in most of these areas there are both short-term and long-term targets, some of which are far-reaching. A recent stock assessment using CROHM (Carbon Reduction Options for Housing Managers) calculated that all of Broadland's stock could achieve an EPC of C at an investment cost of £2.4m, and that this could be funded by disposal of around 65 properties for which it would be uneconomic to modernise. This strategy has been built on



robust 'SMART' principles (Strategic, Measured, Acheivable, Realistic, Time-dependent) and is to be commended.

Your score for sustainability strategy and management approach, out of 15

Energy efficiency

In the SHIFT assessment the energy efficiency performance of your offices and your housing stock are measured, along with estimated energy savings for your residents as a result of your resident engagement activities. Your performance on each of these areas is presented below. The emission figures are based on the DEFRA conversion factors for 2018.

Homes

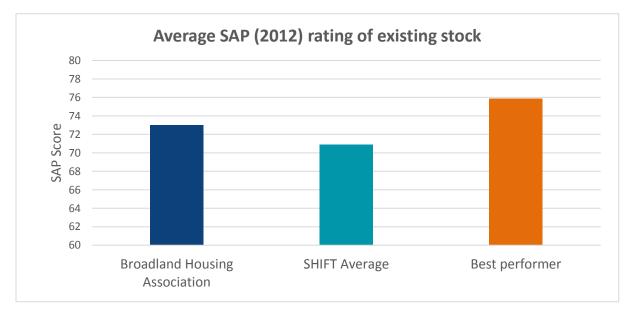
A housing association's stock is responsible on average for 99% of its total carbon footprint¹, so it is essential for landlords to foster energy efficiency improvements in their homes as a vital measure for reducing the overall environmental impact. The most effective way to measure this is with SAP – the Standard Assessment Procedure. The science-based target for all housing is an average SAP of 86 by 2050 – this target is necessary to achieve carbon emissions reduction

¹ Sustainable Homes (2017) The Review: Safe as Houses

targets set in the Climate Change Act of 2008. As demonstrated below, there is currently a large performance gap which will be challenging to fill, but we strongly encourage all landlords and developers to build and retrofit to the highest possible standards in order to lead the way towards a low carbon future.

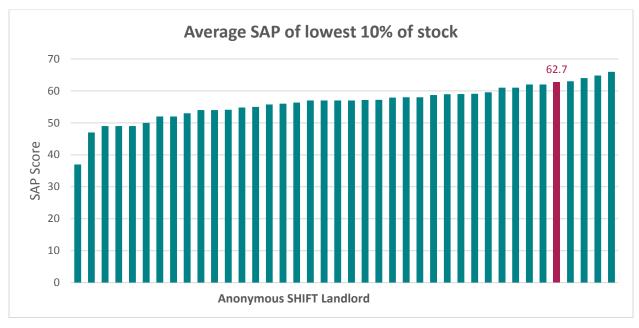


The Head of Assets provided an energy ratings report to show that almost all homes (except 284) had EPCs as at July 2018. The average SAP value across all Broadland's homes is 73.1. Seventy-nine per cent of homes are at EPC C or higher (though none at EPC A as yet).



Average SAP score from whole housing stock

Homes with the lowest SAP scores are those most difficult to heat, so to minimise the risk of fuel poverty it is particularly important to tackle these least efficient homes. An average of the lowest 10% SAP ratings gives an indication of how these homes are performing relative to the stock average.





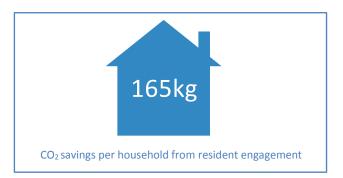
The average SAP rating of the lowest-performing 10% of Broadland's stock was 62.7, as evidenced by a SAP stock report. The chart above shows how this compares to other SHIFT landlords. This shows very good progress toward's Broadland's Corporate Strategy targets for all properties to be EPC C or above by 2019, and is among the highest of SHIFT landlords.

This metric is important because improving the least energy efficient homes serves the dual purposes of reducing fuel poverty risk and raising average SAP.

Resident Engagement

Resident engagement is an important way of informing residents about the ways they can make a difference and empowering them to save both energy and money. SHIFT calculations estimated that Broadland residents saved 165kg CO₂ per home as a result of resident engagement activities

Predicted carbon savings from resident engagement activities are shown below.

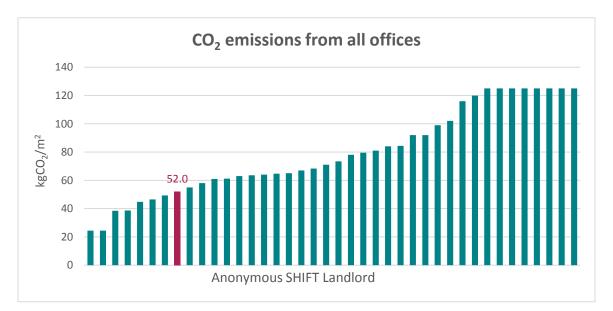


Broadland engage with their residents on energy matters in a number of ways and have scored maximum points for this question. Gas servicing, boiler repairs and replacement all provide a convenient access to speak to residents on an annual basis, where energy controls can be explained. In addition there is a Tenancy Support service which helps residents at risk of fuel poverty to address their tariffs and energy use and their benefits, and to tackle condensation and mould too. A partnership research project with UEA on resident engagement is nearing completion.

By far the most effective way to encourage changes to habits is with active, ongoing engagement beyond passive measures such as website and leaflet information. This can include resident groups, face-to face meetings and roadshows.

Offices

Tackling office energy usage will affect your organisation's bottom line by reducing operational costs and carbon emissions. Broadland's Property Accountant provided details of energy used at Broadland's four main offices at Dereham, Great Yarmouth, Kings Lynn and Norwich. All offices except one used less energy than at the previous SHIFT assessment, thanks to staff engagement to switch things off when not in use, and fewer photocopiers. Broadland's overall energy usage calculated per square metre of office space has reduced considerably since the previous SHIFT Assessment – from 90.2kg CO_2/m^2 , down to 52.0kg.



All office energy use - calculated as kilograms of carbon dioxide, per square metre of office space

The chart above shows how this compares to other SHIFT landlords' office energy use. The target for offices is 25kg per m² of office space – this represents an 80% reduction on 1990 levels of UK energy use for offices.

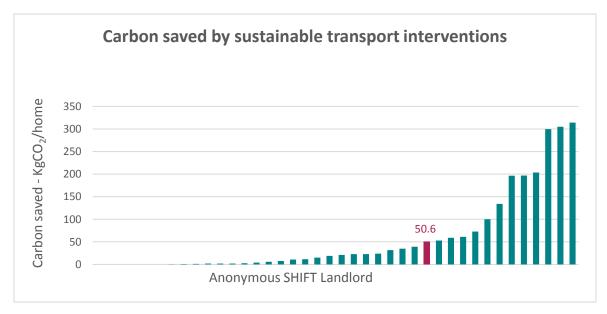
Sustainable transport

The sustainability of Broadland's transport is assessed across the stock's sustainable transport measures, the maintenance fleet emissions and the business mileage emissions. Your performance on each of these areas is presented below.

Homes

Transport facilities and initiatives for residents can help to encourage sustainable travel choices which reduce carbon emissions. This metric is based on the provision of cycle storage facilities as well as transport advice, from travel maps and timetables to cycling and eco-driving training.

Information on advice and provision of measures that promote sustainable transport were given by Broadland's Senior Housing Manager. Around 30% of homes have cycle storage, and around 12% have been given address-specific trainsport advice, on facilities like car-caring clubs, local travel maps and local public transport timetables. Below you can see how your performance compares to other SHIFT landlords.



Measures and initiatives by Broadland Housing Association which enable residents to travel more sustainably.

Maintenance fleet

Carbon emissions from home maintenance activities were based on the annual mileage of both in-house and contracted maintenance fleets. They are measured per home managed, and indicate the efficiency of maintenance travel. Although this will depend partially on the distribution of stock, there are measures that can be taken to reduce fuel costs by switching to a smaller or an electric fleet, providing training on fuel-efficient driving practices. Your performance is shown below.



Carbon emissions from maintenance fleet, kilograms CO₂ per home managed

Information from HR and from the Head of Repairs showed that, after accounting for commuting miles, a total of approximately 515,000km was travelled by Broadland's maintenance staff, including contractors. This works out as 18.5 kg CO₂ per home managed. It is an improvement from Broadland's 2016 figure, which was 22kg/home. One initiative was to include the operative's home postcode in the job scheduling software, in order to try to match their address with the first and last repair job of the day.

Business mileage



Carbon emissions from business mileage, kilograms CO₂ per home managed.

Controlling business mileage expenditure can make a real difference to landlords. The SHIFT metric for business mileage looks at car claims, public transport usage and air miles (if applicable). It is measured as kilograms of CO₂ per home managed.

A breakdown of one year's business travel was provided, listing road, rail and air travel by Broadland staff. A total of approximately 60,000km of rail travel, 250,000km of roadtravel and 550km of air travel was recorded. Using the SHIFT calculator, this equates to 48.8tonnes of CO₂ per year, or 9.7kg CO₂ per home.

Transport improvements - what's next?

With greener communities in mind, many housing organisations are looking at transport options for new developments, including negotiations with public transport operators to provide additional links; car-sharing clubs and electric vehicle (EV) charging points. EVs are providing increasingly cost-effective and lower-carbon means of transport for residents, while at the same time new cost-neutral ways for landlords to facilitate this are becoming available.

Government is considering bringing forward its (currently 2040) target for removing petrol and diesel cars from sale, so demand from residents for charging facilities will rise in coming years. Forward-thinking landlords need to consider how to address this demand.

Waste

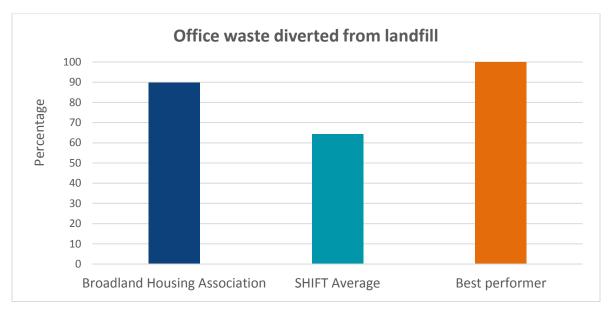
Offices

As interest rises in the circular economy alongside awareness of the damaging impacts of in particular plastic pollution, companies from all sectors are ramping up efforts to tackle waste. Quantifying total waste outputs and treatment is an important first step.

Information was given of waste generated at Broadland's four offices. Over the course of the year, the four offices generated 12.5 tonnes of waste, which averages at 59 kilograms per full-time employee.

Broadland's waste and shredding contractors provided evidence showing that across all four offices, there was 89.8% of waste diverted from landfill.

The chart below shows how your office waste treatment compares to the SHIFT landlord average.





Refurbishment recycling

All major contracts are required to report recycling rates for refurbishment projects. Detailed breakdowns of waste treatment should be available, and good reporting and recycling practices should be factored into the decision-making when contractors are selected.

Data was obtained from Broadland's waste contractor AKS Skips, who provide a monthly breakdown of recycling rates. Between April 2018 and March 2018, the figure for recycling of maintenance waste was 96%.



Broadland recycled the following percentage of their refurbishment waste:

Home recycling

This SHIFT metric reflects the measures that landlords can take to encourage additional recycling by residents, above and beyond what local authorities are doing to boost recycling

rates. In particular, this can be done by providing internal recycling bins, which enable residents to recycle without having to go outside, and have been shown to raise recycling rates significantly.



The specification for new builds and for kitchen replacements includes an internal recycling bin, 42% of all homes now benefit from these. In addition there is much information available to all residents on what can and can't be recycled, and awareness of composting training that includes a free composting bin for residents attending this. Around 41% of homes now have composting facilities. The SHIFT calculator estimates that these additional measures enable Broadland residents to recycle 15.9% more than the local average.

Waste reductions – what's next?

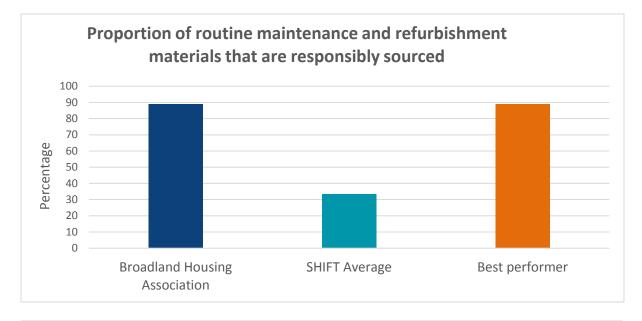
As the first of the 3 Rs is 'Reduce' (reduce, re-use, recycle) – the first step in waste management is to buy less. Reduce the need for purchasing new stuff, for example by buying less paper and envelopes increasing the switch to electronic mail; or repurpose furniture and fittings too, by building relationships with local recycling initiatives.

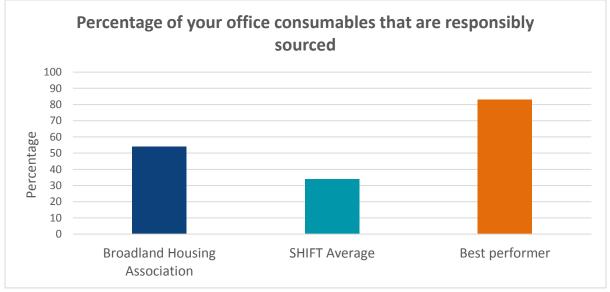
A surprising amount of what gets thrown away is brand new and still in its packaging, so cleverer purchasing and procurement can save expenditure. When waste disposal is managed by contractors, there is a legal responsibility for the originator to be clear on how disposal is conducted – as well as a financial cost, particularly for anything that ends in landfill. Less spent on waste means more spent on improving homes.

Responsible sourcing

Maintenance materials | Office consumables

Housing providers can influence sustainability beyond their own organisation by engaging with suppliers and using their purchasing power to encourage best practices. Responsible sourcing practices were assessed for maintenance products, including pesticides, cleaning products and building materials, as well as office consumables.





Responsible sourcing for maintenance and refurbishment materials, and office consumables.

Confirmation has been received from the Supervisor of the Estates Teams that no pesticides are used. Herbicides are in use, but use is restricted and some schemes receive none. Evidence was provided to show that timber, plumbing and cleaning supplies are sourced from suppliers with sound responsible sourcing policies in place. Overall a score of 89% responsibly sourced materials is recorded here.

The PA to the Executive Property Director gave details of office products purchased at Broadland. 100% recycled paper is in use at their offices, and their stationery supplier, Banner uses many products made by Q-Connect, who make many eco-friendly products. It was calculated that 54% of stationery was responsibily sourced, also 66% of janitorial supplies. While toner cartridges are recycled after use, SHIFT only credits toner cartridges which are made from recycled materials.

Water

It is becoming ever more important to introduce water-saving measures as the changing climate and housing pressure increase the risk of water stress globally. Broadland Housing Association's water efficiency was quantified for both homes and offices, and your performance is described below.

Homes

The SHIFT metric uses asset management data to estimate the average water usage per resident. This calculates the percentage of stock with water efficient devices, including low-flow showers and taps, dual-flush toilets and water meters.

The PA to the Executive Property Director provided details of the water specifications of new fitted bathrooms, as well as numbers of homes where these have been installed. Water butts are often fitted to improve external areas, and in partnership with Anglian Water there has been a large take up of water meters, which are known to encourage lower usage.Using the SHIFT calculator, Broadland homes use on average 131.6 litres of water per person per day (lpd), very close to the maximum score for this question.

Below you can see how this compares with the SHIFT network and science based targets.

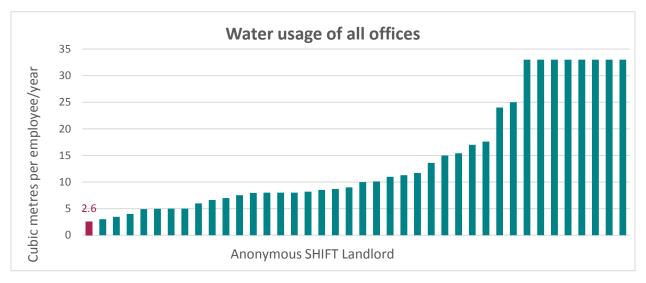


Water consumption for Broadland stock (litres per person per day – calculated using SHIFT calculator)

In SHIFT assessments up until now, the SHIFT target for per capita consumption has been 130 lpd across all stock. This reflects the Building Regulations (Part G) limit for new dwellings of 125 lpd including a 5 lpd allowance for external use. However Building Regulations set a lower target of 110 lpd in areas where water stress is more pronounced. Since water stress is becoming an increasing issue, the future SHIFT assessment target will be 120 lpd for internal use across all stock.

Offices

The Property Accountant also provided details of Broadland's water usage at its four offices. Some useful staff engagement had taken place, which raised staff awareness of water use both at home and at work. A partnership with local water companies had enabled water saving devices to be given to staff. At the previous SHIFT assessment, water usage per staff member was measured at 4m³ per year, which was already low. A further improvement has been made, reducing to 2.6m³ water per staff member, the lowest among SHIFT landlords.



Office water use per year (m³ per employee)

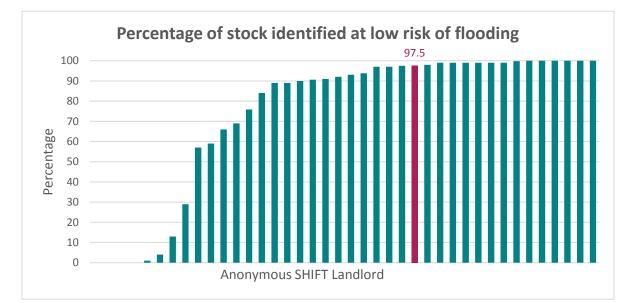
Climate risk

As climate change intensifies and extreme weather patterns become ever more common, the resilience of your business and stock is increasingly important to take into account. This is experienced most directly through the flooding and overheating risk of housing stock and offices.

Homes at risk of flooding and overheating

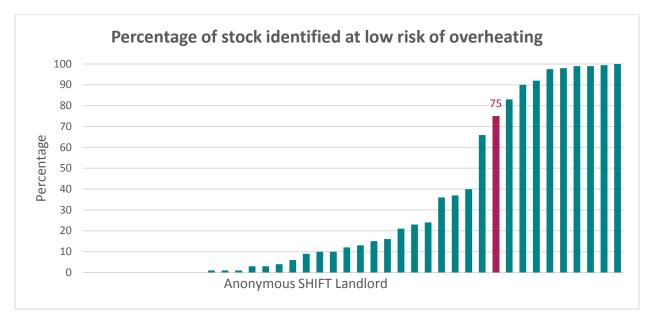
The percentage of Broadland's homes that have been positively identified as low flood risk is 97.5%. This compares to the SHIFT landlord average of 74.2 %.

Meanwhile, 75% of homes were identified as being at low risk of overheating, compared to 32.1% on average among SHIFT landlords.



The charts below show compare your performance with the SHIFT average.

Percentage of stock for which a flood risk assessment has been carried out, and which have a low risk of flooding



Percentage of stock for which an overheating risk assessment hs been carried out, and have a low risk of overheating

Climate predictions herald shorter bursts of higher-intensity rainfall, which affect the way that existing water-processing infrastructure will cope. Green roofs and SuDS (Sustainable Drainage Systems) are ways of reducing surface water runoff and combating acute flooding events.

As hot dry periods become more of a feature of British summers, excess summer deaths are set to rise, and overheating risk assessments are becoming more and more important, particularly where older residents are likely to be living. As temperatures rise outside, the home can provide a refuge, but if the building retains heat there is nowhere to go for some vulnerable residents. Landlords with an understanding of their at-risk homes are better prepared for hot weather events.

An Environment Agency survey was carried out, on behalf of the Head of Asset Management, which confirmed flood risk for all of Broadland's stock. 97.5% is shown to be at low risk of flooding.

A survey of overheating was carried out prior to the 2016 assessment, which showed that 74.4% of homes were not at risk of overheating. Adding in newly-completed homes since then brings the figure to 75%

Offices

Two of Broadland's four offices have a 'possible' risk of flooding, and so 'Partial' is recorded here.

Ecology

Access to green spaces and biodiversity can deliver major benefits to our health and wellbeing. These include air quality improvement, flood attenuation and cooling during heatwaves. SHIFT estimates the natural capital value of the green spaces managed by Broadland Housing Association, according to the social value that they offer to residents. This is shown below.



Natural capital score for Broadland Housing Association's stock (out of 100)

Broadland's Estate Services Operatives (ESO) team gave details of open spaces that benefit their residents. A mapping exercise of their flats and sheltered schemes was able to show significantly more open space attached to these buildings than the SHIFT default figures. In addition details were given of over 2,700 homes benefiting from ecological enhancements that encourage wildlife in to these spaces, such as bird feeders, bat boxes, tree planting and areas for food growing and composting. A score of 51.4% was obtained from SHIFT's natural capital calculator.

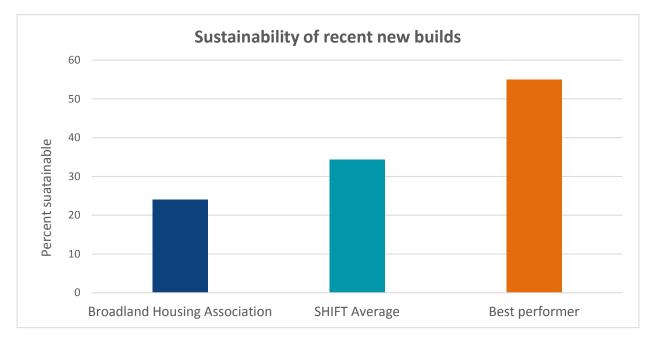
New build

When building new properties, it is crucial to take a long-term perspective to ensure they are future-ready for carbon reduction targets and climate change. Despite the loss of the Code for Sustainable Homes, guidelines and voluntary standards are still available and can be used to ensure that new properties are built to extremely high sustainability standards.

Energy efficiency is an important part of the score awarded in this new build section. Compliance with current Building Regulations generally results in new homes reaching a SAP score above 80 (EPC level B). At the same time, emissions targets for 2050 imply that ALL homes in the UK should be at an average of 86 by then. In other words, to reach that target developers and landlords should aspire to build to zero-carbon standards now. As well as energy efficiency, the SHIFT metric factors in a range of measures to determine the sustainability of new builds, including energy and water efficiency, ecological enhancements and sustainable transport support.

Using the SHIFT calculator for new build, the sustainability score for Broadland Housing Association's new build homes was 24.0 out of 100. This takes into account energy and water efficiency, cycle storage and other sustainable transport measures such as electric charging points, recycling provision and ecological enhancements.

The graph below shows how Broadland's new build sustainability compares to other SHIFT landlords.



Sustainability percentage score of recent new build housing (last two years)

Sector overview

Overall, we have seen encouraging progress made by our SHIFT landlords over the last year. The energy efficiency of SHIFT landlords' stock continues to outperform the social housing sector average, while data collection and granularity is continuing to improve steadily for most areas.

The following sections particularly stood out in terms of progress made and opportunities for improvement:

Ecology – The natural capital metric has been reworked for this year's SHIFT assessment in order to capture the full extent of housing providers' ecological enhancements. While there is still plenty of scope for increased development of green spaces and biodiversity measures, it is good to see green spaces being measured and valued.

Sustainability Strategies - It is especially encouraging to see a rise in SMART target setting within sustainability strategies. This underpins substantive, measurable action, so we anticipate an increase in quantified projects and improvements in future.

Sustainable transport options - There is still plenty of room for improvement on sustainable travel initiatives, so this is an important area for landlords to focus attention. The rise of electric vehicles offers an opportunity to refocus attention on the ways that the built environment can foster a culture of healthy, low-emission travel. Infrastructure that supports walking, cycling and public transport can be a fantastic way to reduce emissions and promote resident wellbeing.

Responsible sourcing – there was great variety in organisations' levels of responsible sourcing for both office and refurbishment materials. Specifications requiring sustainable, ethically sourced products, and collaboration with suppliers to improve their environmental practices, are key ways of extending your sustainable footprint beyond the direct assets and operations of the organisation.

SHIFT landlords work hard to reduce environmental impacts. The SHIFT assessment displays and celebrates this work, and gives the chance to take stock and plan for further improvements. It also tries to challenge housing associations to push boundaries and go beyond comfort zones when it comes to sustainability. This is an exciting time, with the emergence of electric vehicles, battery storage, and better recognition of biodiversity benefits and climate adaptation requirements, to name just a few areas. SHIFT landlords must make the most of these opportunities if they are to be truly sustainable organisations.

This is not an overnight process and improvements can take a long time to mature. However, we need action now to deliver a sustainable and affordable social housing stock in the future, and SHIFT landlords can play a central role in achieving this goal.

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