



Environmental Sustainability Strategy (2016-2021)


REF: CORP/S11

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<i>Sustainability Strategy 2016-2021</i>	April 2016
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Lead Officer: Frankie Bowen, Sustainability Coordinator Next Review date:	April 2017

Executive Summary

Our Sustainability Strategy 2016-2021 sets out how Swan Housing Association will enhance its position as one of the most sustainable and environmentally-conscious Housing Associations in the UK. As a pan-organisational strategy describes how our approach to sustainability will contribute to our organisational objectives, KPIs and Swan's mission 'to deliver effective services, enterprising solutions and exemplary homes and communities'. Swan Housing Association will reduce its impact on the environment and fulfil all legal obligations in relation to sustainability whilst maintaining our commitment to achieving excellent value for money in all that we do. The following three points summarise the targets we aim to achieve over the next 5 years:

1.  **Assets:** Achieve an average SAP of 71.5 & a decrease in average carbon tonnage from 2.98 to 2.60 tonnes/ per property per year

2.  **Office & Construction sites:** Achieve a 20% reduction in CO₂ emissions (4% per annum).

3.  **Financial saving target:** £200,000 saving to the Group

1. Introduction to the Strategy

Our Environmental Sustainability Strategy sets out how Swan Housing Association will work to become one of the most sustainable Housing Associations in the UK. This strategy sets out key strategic objectives and KPIs, details how we intend to achieve these, and how performance will be monitored on an on-going basis. This will ensure that Swan's impact on the environment is kept to a minimum, risks are mitigated, carbon emissions are reduced and that we continually improve our performance as regards environmental sustainability. This strategy is aligned with Swan's Corporate Strategy; Regeneration & Development Strategy 2015-20 and CSR Strategy Action Plan (2015-17).

This strategy covers Swan Housing Association and all its subsidiaries. The strategy describes how sustainability contributes to the Group's mission 'to deliver effective services, enterprising solutions and exemplary homes and communities' by making efficiency savings, reducing risk and demonstrating value for money. This will enable Swan to identify areas for improvement, understand efficiencies that can be made and mitigate any associated impacts. The Environmental Action Plan (EAP) in Appendix 1 outlines the detail of the targets and actions for the organisation, in order to achieve the objectives set out below.

1.1 What 'Environmental Sustainability' means at Swan

There is now general consensus that environmental resources are being depleted and that the global climate is changing as a result of human activity. Consideration for the environment and embedding sustainable practices in all that we do at Swan will result in a positive impact on the climate, alongside associated other benefits. Sustainability is embedded into all parts of the organisation and put simply is about living successfully in the present without compromising our ability to do so in the future.

Our approach to environmental sustainability will contribute positively to the enjoyment our residents and staff in the surroundings in which they live and work. By considering environmental sustainability in all that we do, we will realise monetary savings both for the business (e.g. through reducing waste) and for our residents (e.g. by reducing fuel bills).

Headline forecast monetary savings are detailed in the EAP. These savings will contribute to Swan's organisation-wide target to secure £10m efficiencies over the next 4 years.

Swan supports numerous communities and a diverse range of residents. We have a duty of care to respond to the needs of our residents without harming the environment in the short and longer term. Our commitment to environmental sustainability will help to ensure that we build high quality new homes as well as best manage our existing stock, meaning that all our homes are fit for generations to come.

1.2 Here and Now

Swan currently maintains a strong position environmentally with a number of accreditations and controls in place to ensure we meet legal and regulatory responsibilities. The organisation has already demonstrated many examples of sector leading environmental and sustainable practice.

Swan:

- is certified to ISO 14001 and is externally audited annually to ensure our Environmental Management System is up to date and fit for purpose. This ensures our construction sites are audited regularly with a structured framework in place.

- is a member of SHIFT (Sustainable Homes Index For Tomorrow) and we currently hold Gold status (only one of six in the UK currently). This benchmarking and best practice accreditation sets the precedent in the sector and we aim to achieve Platinum in 2016, leading by example.
- has gained a prestigious Green Apple award for a water efficiency project working with residents across Basildon.
- participates in various research and trial-based projects to help innovate in areas of emerging sustainability technology and unexplored research. This helps us to incorporate smarter design and build decisions in the future.
- has an average current SAP (Standard Assessment Procedure) score of 70.66 for existing assets which is well above the national average for social housing of 65.5 (the average for SHIFT landlords is 70.3.) SAP is the methodology to measure environmental performance of dwellings.

1.3 Sustainability Standards

Following the winding down of the Code for Sustainable Homes in 2015, the minimum requirements for environmental sustainability in relation to residential new build and refurbishment are now captured through Building Regulations. In addition to the minimum standards Swan can consider new emerging voluntary sustainability standards (e.g. Home Quality Mark).

BREEAM (Building Research Establishment Assessment Methodology) is the world's longest established method of assessing, rating, and certifying the sustainability of buildings. Swan has incorporated BREEAM into its portfolio through having select commercial buildings assessed. This helps to successfully and cost effectively adopt sustainable solutions, and provides market recognition for our achievements. Where viable we will incorporate compliance into our new schemes, and this will be reflected in the new Regeneration and Development Commercial Procedure.

1.4 Environmental Risk

Environmental risk exists in a variety of forms across Swan Housing Association and it is important to define and measure this risk in order to understand the severity and likelihood of environmental incidents associated complaints. This is undertaken as a part of our ISO 14001 accreditation that is externally audited annually. Risks are represented as:

Risks	Examples of risk
1) Reputational Risk	Environmental spillage into water course on site posing a risk to the business (negative press and PR).
2) Regulatory Risk	To ensure conformance with associated laws and regulation i.e. ensuring we are up to date with any forthcoming regulatory changes from the Environment Agency.
3) Legal Risk	Ensuring we conform with all EU environmental treaties, laws and directives associated with our operations.
4) Financial Risk	If we do not conform within environmental laws, this could have the potential to become a financial implication for the business through fines, penalties and prosecution.

With Nu Living now undertaking the majority of our construction works, this has been reflected in our organisational risk management. The nature of the work Nu Living undertakes is of higher risk from an environmental perspective than that of the rest of the organisation. In order to reduce the environmental risks from our construction sites, Nu Living will operate as efficiently and effectively as possible and monitor and manage risk through the lifecycle of a scheme, from conception to final completion.

2. Operational Context

2.1 Our Properties and their Local Context

Affordable warmth & fuel poverty is high on the agenda in the UK and especially in a social housing context. As detailed below, generally our properties are above average within the sector for environmental efficiency as assessed by SAP, but we do have a small number of homes which achieve poor ratings (with 25 of these ranging from SAP 22–41). We also have 342 properties of traditional solid wall construction which have poor thermal efficiency. Through active asset management (improving fabric efficiency and disposal) Swan can reduce the number of poorly performing homes.

By investing where we can make the greatest difference we will use our geographical focus to our advantage, exploiting our local presence, relationships and knowledge. However, Swan's operational locations (East London and South Essex) are diverse with different pressures and risks.

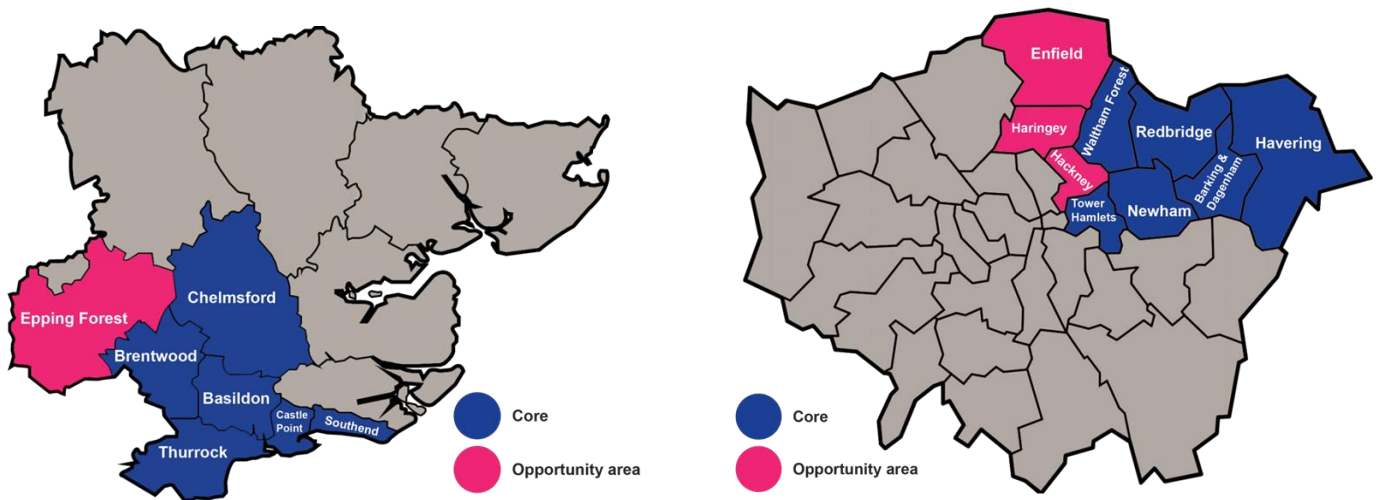
Essex

Our properties situated in Essex are geographically concentrated around Swan's original service base in Basildon. Other areas include Uttlesford, Braintree, Harlow, Colchester, and Tendring (Clacton). In Essex Swan currently has 8,282 properties. The majority of these properties were built during the 1960s, 1970s and 1990s, and are characteristic of the post-war period in terms of architecture, build type and quality.

London

In comparison our London stock is substantially younger and more high-density in character, predominantly flats in the London Boroughs of Tower Hamlets and Newham. In London Swan owns/manages 3,786 properties with nearly a third of these built in the 2000s. London as a city is at risk of surface water flooding with some of our stock sitting within this flood zone. The city also currently suffers from poor air quality. Precautions need to be taken to ensure that the assets we manage and/or own are fit for purpose.

Fig 1. Essex and London operational areas



2.2 Housing and construction – the current market context

Population pressure and a volatile housing market in London and the South East means that housing associations such as Swan have a significant part to play in responding to the overwhelming demand for good quality affordable new housing. We must also respond to the challenges of a rising construction market and the constraints of development on mainly brownfield land. Sustainability is a key consideration for our development programme both in terms of reducing waste and demonstrating best value for money through our construction contracts.

Our approach to sustainability will also ensure value for money for our future residents, creating new homes that are simple and affordable to heat and ventilate, with minimal use of complex technology.

2.3 Political Change

In May 2015 the Conservative Government were elected for a second term and will remain in power for the majority of this strategy. There have been a number of key changes to environmental legislation in the last year - noteworthy highlights include the ending of the Green Deal and the Code for Sustainable Homes, and the reduction in the Feed in Tariff. 2015 also saw the introduction of ESOS (Energy Saving Opportunity Scheme) of which Housing Associations are currently exempt. ESOS is a mandatory energy assessment scheme for organisations in the UK that meet the qualification criteria. This is likely to change in the future. Reform of the Landfill Tax and the Landfill Communities Fund is predicted in 2016 - this will have a financial impact on our construction programme.

The Government's Fuel Poverty Strategy, launched in 2015, sets interim objectives to get as many 'fuel poor' homes in England as is reasonably practicable to Energy Performance Certificate (EPC) band E by 2020. Currently, we have 291 properties with EPC (Energy Performance Certificate) between E-F.

Government agencies and environmental regulators (the Environment Agency, DECC and DEFRA) have all seen funding and staffing cuts during the Government's austerity rounds, and

this means that organisations such as Swan are expected to monitor environmental compliance more carefully, without the previous level of oversight.

The new Labour GLA administration and the new Mayor of London are likely to create some changes to environmental policy in the London region. Similarly the result of the EU referendum in June 2016 could change the course of environmental legislation.

3. Our Stakeholders

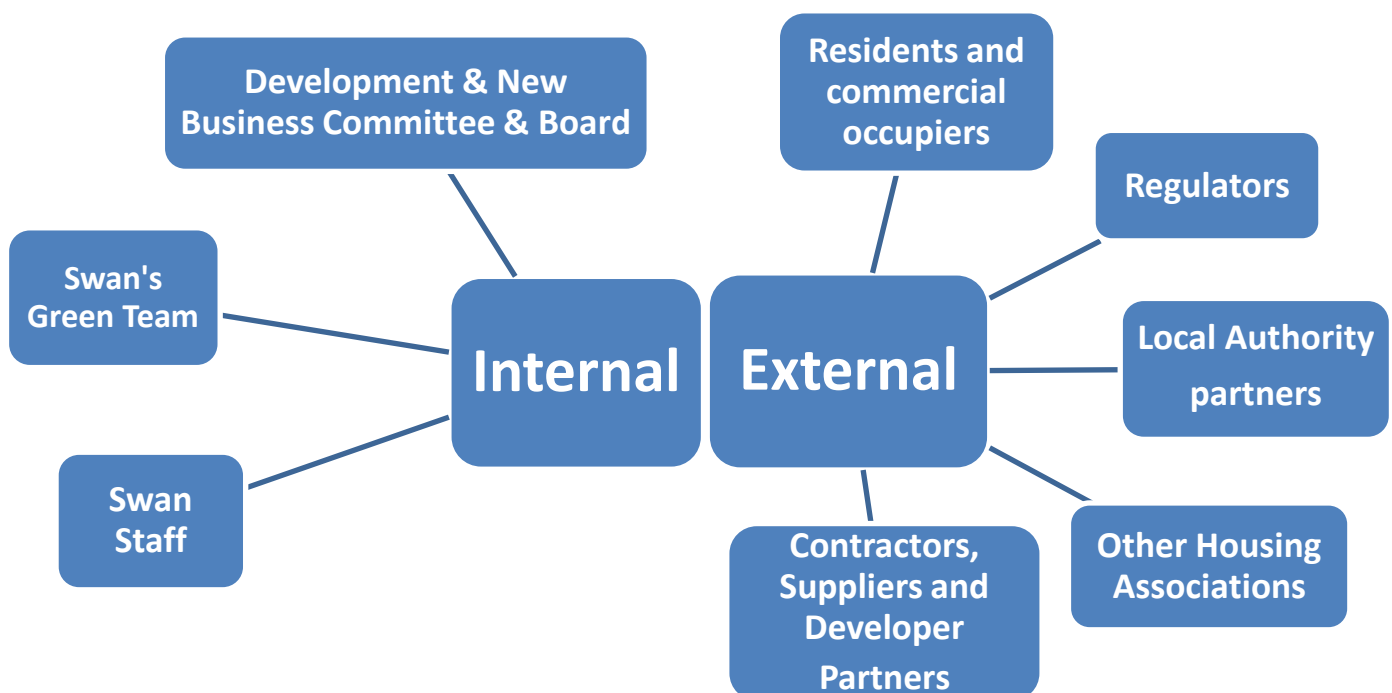
It is the strong relationships that Swan holds with its stakeholders that will make this strategy successful in the long term, through working together, tracking progress and supporting us to achieve our strategic objectives.

Internal Stakeholders:

The Green Team will steer the delivery of the strategy - showcasing best practice where possible and will challenge the status quo. Swan requires full engagement from all staff members to embrace sustainable behaviours and lead by example.

External Stakeholders:

At the core of our business are our customers. We serve varied communities with diverse financial, cultural and physical care needs. We must also engage with regulators to ensure legal compliance in a changing regulatory environment. Building strong relationships with partners with which we share common values and focus is key. These partnerships provide support and help us to innovate in areas where we do not have existing expertise. Links with other Housing Associations and industry/sector-wide networks allow us to share knowledge and problem-solve e.g. Communal Heating Forum . Our contractors and suppliers also play an important role in helping us to achieve our sustainability objectives.



4. Carbon Reduction Strategy

4.1 Swan's Impact Areas

To reduce our environmental impact and carbon emissions Swan will focus on the themes set out below, concentrating resources business areas which are seen as high risk or have significant carbon emissions, and where we can make the largest monetary savings for the business on the whole. The EAP sets out the mechanisms for achieving our overall targets and assigns responsibilities. The EAP will be monitored by the Green Team on a bi-monthly basis.

- **Energy efficiency**
Ensuring we build energy-efficient homes, ensuring a fabric first approach of commercial and community spaces for our residents and staff. Review the energy efficiency of our existing stock to target appropriate refurbishment or asset management in order to improve the worst performing homes.
- **Energy generation**
Researching and installing technology that allows us to generate our own energy, either for our offices or for our homes and neighbourhoods.
- **Green procurement**
Making sure that we buy products, materials and services that do not have a negative impact on the environment, and that our approach to environmental sustainability passes down our supply chain.
- **Waste Management in Construction**
Swan will adhere to the BS 8895 standard (Designing for Material Efficiency in Building Projects – part 1 & 2). This ensures we consider the efficient use of materials from inception. Our in-house design and project teams alongside Nu Living will identify areas for improvement and strive to reduce waste and improve environmental performance on site.
- **Water management**
Monitoring, measuring and reducing our water usage. Consider alternative options for water use and management (e.g. waterless urinals on our construction sites).
- **Sustainable travel** - Ensuring we give advice on sustainable travel options to our residents and employees, provide opportunities to reduce business mileage and incentivise car sharing, cycling, walking and use of public transport, where appropriate.
- **Ecology**
Safeguarding the environment to reduce any detrimental effects on the neighbourhoods in which we operate, promoting wildlife and ecological diversity where possible.

5. Carbon – Strategic Objectives & KPIs

5.1 Swan's Carbon Scorecard Methodology

Swan's current carbon scorecard has been assessed following the collation of data internally (e.g. via bills and meter readings) following the methodology set out in DEFRA's Greenhouse Gas Reporting Corporate Standard. Swan's carbon scorecard is a tool by which a vast amount of data is collated and collected and analysed. Data collected includes electricity, gas, and water usage, waste production and recycling and leased fleet business mileage. We have worked with external environmental consultancy WSP to convert this information into a carbon tonnage figure (tCO_{2e}). Data inclusion is decided on completeness, reliability and accuracy and whether we have direct or indirect control over the area in question.

Utilising this methodology we can:

- collate, measure, monitor and report on impact across the business
- feedback on efficiency and effectiveness of controls and risks exposure
- ensure that our analysis is robust and formulate realistic targets
- realise efficiency savings and environmental benefit by looking at our key areas of both capital expenditure and carbon production and targeting change accordingly
- draw comparisons and benchmark with other housing associations

5.2 Swan's Targets

The targets below have been derived following discussions with sustainability consultants, WSP. It was felt that two carbon targets would be necessary; one for our largest contributors (our assets) to track improvements over time. The other carbon target combines our offices and construction sites as these share almost similar uses (e.g. use of electricity and gas). Financial targets have also been developed to help us recognise the savings that can be achieved alongside driving environmental improvements. Targets will be monitored year upon year with the data being normalised accordingly to floor space (GIA m²) to allow comparisons.

5.3 Target 1: Our assets

Our assets cover all the properties administered via our Keystone asset management system (12,000 in total) which are either owned or managed by Swan. Currently these properties account for **35,760 tonnes of CO₂ per year**. (This figure is derived from a SAP report produced directly from Swan's Keystone system, sourced from the available EPCs for 6,414 of our properties). This equates to **2.98 tonnes of CO₂ emissions per property per year**, and the total figure quoted above assumes that the properties with current EPCs are representative of our general stock.

Our **target is to reduce the CO₂ emissions per property to 2.6 tonnes per year by 2021**. This would equate to a **target average SAP rating of 71.5**. This target is reflected in Swan's Asset Management Strategy and actions to support this target can be found in Appendix 1. These include measures that can be taken as part of planned maintenance of properties – for example maintenance and replacement of windows, doors and heating systems would improve the SAP rating. Alongside works to properties, we will consider stock rationalisation to minimise the number of very poorly performing homes within our portfolio.

5.4 Target 2: Office & Construction Sites

Our office and construction site reduction target covers 7 of Swan's offices. The remainder are captured as a part of the assets targets above to avoid double counting. This target also includes 3 of Swan's operational construction sites:

- Repton Court, Ilford
- Oldchurch Park, Romford
- Craylands, Basildon

Further sites will become live over the duration of this strategy and will be accounted for accordingly. Swan's leased vehicles (20) and Axis vehicles (32) are also included within these calculations, with data captured via mileage reports and the online tracking system. Collectively **these sites and vehicles currently account for 902.73 tonnes of CO₂ emissions per year**. Swan's offices and construction sites have an impact on the environment from electricity, water and gas usage, waste, and business mileage. A 20% reduction for these areas collectively is a challenging but realistic target with the reduction of waste from our construction sites being the primary contributor to these savings.

The main actions to reduce waste across our sites and offices are:

- set up of off-site manufacturing factory. Construction sites are, by their nature, very wasteful. In terms of both physical resources and time. Materials get damaged, lost and are stored far from where they are utilised. People spend huge amounts of time and energy travelling to and from site, waiting for others to complete their tasks before they can begin theirs. Errors mean that items are done more than once and the opportunity to reuse material is curtailed e.g. if too much of a material on site x is binned rather than saved, stored and transported to site y. The use of off-site manufacturing addresses all of these issues by bringing the construction process into a controlled environment where we estimate waste can be reduced by up to 90%.
- the introduction of the BRE 'SMART Waste' tool on our construction sites to better monitor and manage waste production and recycling.
- the introduction of 'follow-me' printing across our offices, resulting in a reduction in paper use and waste.

Further detail of the proposed actions towards this element of our sustainability strategy targets can be found at Appendix 1.

5.5 Target 3: Financial Saving Target

Financial targets have been set in order to demonstrate that environmental improvements can also save Swan Housing Association money in a variety of ways. This target is focused on specific areas of the action plan in Appendix 1. Some actions will realise carbon savings, some financial and some both. The items that will contribute primarily to this target will be on the waste streams from our construction sites, sustainable procurement practices and the consideration of the ongoing maintenance/life cycle costs of the new technology we install in our homes.

We are **targeting a saving of £200,000 over the next 5 years**. Currently we are projecting savings from the following:

- Changing the procurement of diesel for our construction sites (saving £0.45 per litre): total anticipated saving of £56,250 over 5 years
- Implementation of the BRE 'SMART Waste' tool across our construction sites: total projected saving of £62,500 over 5 years.
- Changing waste contractors (to GBN from McGrath) saving £80/skip lift, alongside allowing for the reduction in waste following the introduction of the BRE system: total forecast saving of £136,320 over 5 years
- Reduction in paper purchasing following the introduction of 'follow-me' printing in our offices: projected saving of £5,250 over 5 years

We anticipate a reduction in costs through improved specification of sustainable fixtures and fittings in both our new build and planned maintenance works, which will require fewer replacements and less ongoing maintenance. This may require increased capital expenditure on such items (e.g. specification of LED lighting for communal areas in new build properties) but justification will be made on a case by case basis to demonstrate the capitalisation of the reduced life cycle costs.

6. Delivering the environmental sustainability targets

6.1 Partnership working

Swan will work in partnership with all relevant stakeholders to deliver the targets set out above, for example through undertaking research projects with Local Authority partners, or gaining additional support from our public funders.

6.2 Green Team & Staff

The Green Team will work across Swan to undertake key actions and tasks in relation to this strategy. With 11 members of the Green Team in key strategic positions we are in a strong position to ensure we push the agenda Group-wide. All staff also have either a VFM (Value For Money) and/or CSR objective to complement and support the environmental work we undertake, ensuring we all have the same ethos.

6.3 Training

All staff members complete environmental E-learning each year which covers the broad impacts we have on the environment and how we can reduce them. Supplementary to this we deliver a green induction to all new starters as a part of Swan's wider corporate induction. This helps to ensure our staff are able to manage environmental risk efficiently. Swan hosts an engaging annual Sustainability Week to raise awareness of key issues of an environment nature.

6.4 Research and Innovation

Innovation is a part of how we will achieve our overall objective. As a social landlord we need to look at alternative solutions and be forward thinking in the way we deliver our services. Undertaking trials and research in house and with external partners enables us to gain knowledge and helps to inform and better our services moving forward. Examples of this include working with external parties such as BRE (Building Research Establishment).

6.5 Modular Design (OSM)

Innovative construction methods, products and inventive use of traditional, natural and recycled materials increasingly offer new ways of constructing sustainable affordable homes. Swan has experienced rapidly increasing construction costs over the past few years, reflecting skill shortages, increasing materials costs and the impact of regulatory change. Increasing environmental performance within construction could further drive up costs, so we will manage

and monitor our construction programme to minimise this risk. Off-site modular production for construction will enable us to build higher quality homes with improved environmental performance whilst also reducing materials costs and wastage through standardisation and efficiencies.

6.6 ESCo (Energy Services Company)

Swan procured an 'Operate and Manage' agreement with Eon for all of our existing CHP (Combined Heat & Power) and District Heating systems, gaining efficiency by bringing all of these schemes under the same management, billing and maintenance arrangements. This agreement will identify any shortfalls in our current systems, their specification and any consequent expenditure required to bring them up to the required standards. It is envisaged that new development schemes with CHP systems could be added to the Eon O&M contract.

6.7 Sustainable Refurbishment

1027 of Swan's properties were built before 1970 and there is scope to consider refurbishment of our existing stock, where financially viable, to better its environmental performance and therefore improve the experience of living in these properties for our residents. Swan's Regeneration and Development Strategy also sets out a target of managing two estate regeneration projects at any one time, which could incorporate refurbishment and environmental improvements alongside new build development.

6.8 Swan's Design Guide and Employer's Requirements

Swan's Design Guide sets out our ambitions for the development of new homes and neighbourhoods. This document is intended for use by designers and architects and sets out key design principles. Sustainability is an integral consideration for all Swan schemes. We will focus on 'fabric first', coupled with on-site renewables where necessary, in order to reduce ongoing running costs for residents and to reduce management and maintenance costs for the Group.

Regeneration and Development expect certain standards of our contactors, including specific sustainability requirements relating to materials and products specifications, and regarding their consumption of utilities and production of waste. These standards and requirements are set out in the Employer's Requirements document which forms part of all our construction contracts. We are therefore able to monitor the environmental impacts of our operational construction sites, and ensure that contractors use sustainable materials, and install robust high quality building systems and fixtures and fittings.

6.9 Building Information Modelling (BIM) in design and construction

BIM presents various benefits to us by way of efficiency savings from increasing productivity, reduction of wastage and clash detection during the design stage to avoid construction errors. Married with our 'fabric first' approach and our commitment to modular design and construction, the adoption of BIM will help to improve the environmental performance of our construction sites and our new homes. This is reflected in Swan's Regeneration & Development Strategy.

7. Post-Occupancy Evaluation

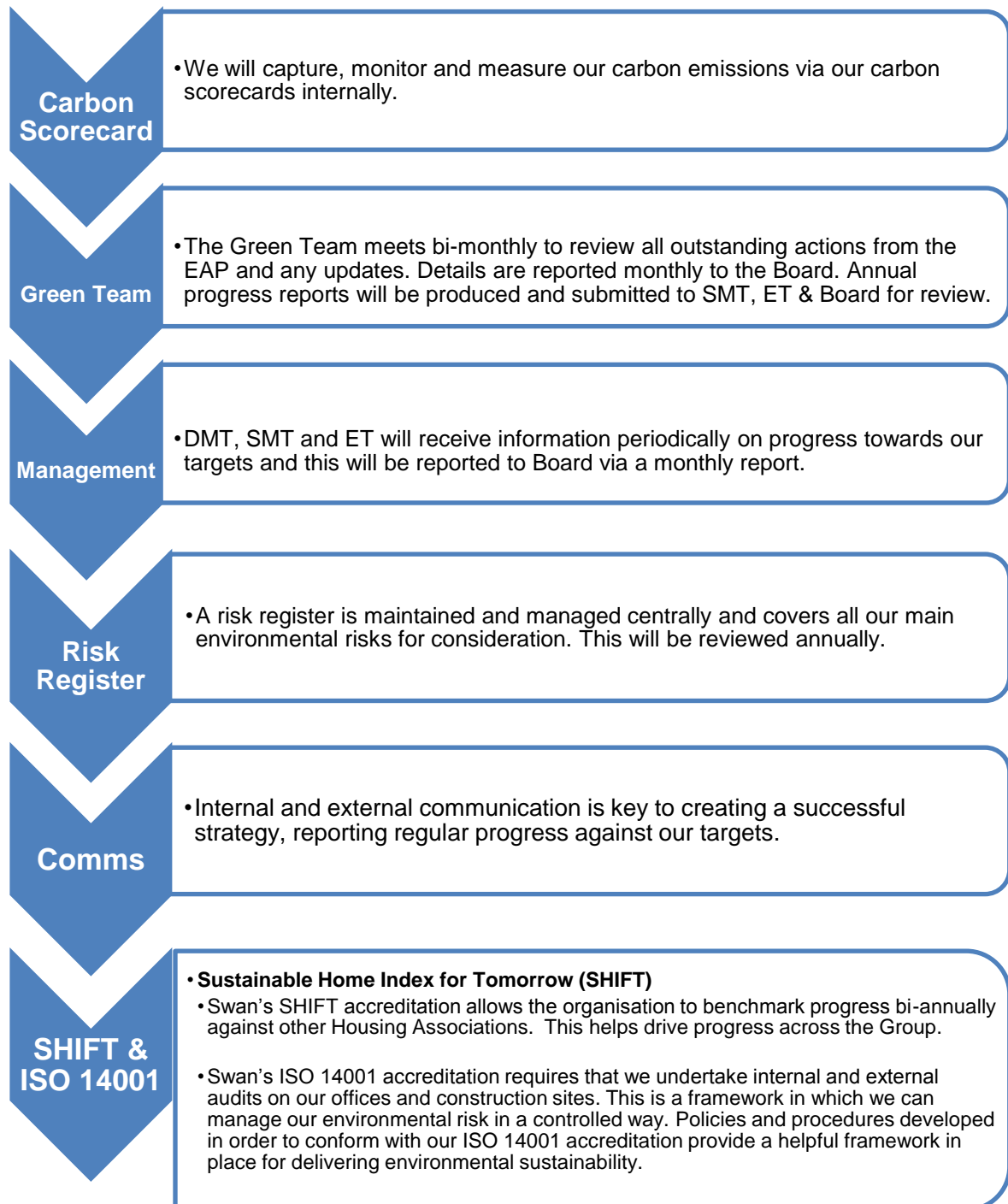
Post occupancy evaluation is currently somewhat overlooked in the majority of our development projects – the expectation being that new buildings will perform as originally modelled. In reality this isn't always the case and performance gaps can be found across the design and build process. Swan's Regeneration and Development team are developing new procedures to better monitor the performance and management of new buildings in use, and are working with University College London on a research project to track the lived experience

of a number of our recently completed properties. We will act to ensure that feedback gained through post-completion reviews with both staff and residents is utilised to regularly update our design guidance and Employer's Requirements, where appropriate.

For example, where a significant number of Swan's new homes in recent years have incorporated Mechanical Ventilation and Heat Recovery (MVHR) systems in order to provide sufficient ventilation in air tight homes, post-occupancy reviews have flagged issues with the functionality and maintenance of these systems, which generally require regular filter changes and/or cleaning. Where relevant, information on this will be incorporated into residents' manuals going forward, and the requirement for filter changes will be more clearly raised within the information passed to housing management and maintenance staff at handover.

8. Monitoring, measuring & reporting (on future strategy)

The strategy will be monitored and measured in a variety of ways throughout the 5 year period, to ensure we remain on target, anticipate any problems and achieve our main objectives.



Appendix 1. Environmental Sustainability Action Plan

Carbon Strategic Objectives	Impact area	How we will achieve these objectives?	Year 1	Year 3	Year 5	Indicative savings	Lead Team
1. Our Assets Achieve an average SAP of 71.5 by 2021 & a decrease in average carbon tonnage from 2.98 to 2.60 tonnes per property per year	Assets	1) Seek financial support through available funding for retrofit on applicable properties e.g. ECO or similar. 2) Review current asset specifications of (boilers, windows, doors and roofs) to ensure what we install offers value for money. 3) Identify properties that are in need of additional insulation and improve where identified (solid wall properties). Access funding where applicable. 4) Undertake research/trial projects with our residents e.g. UCL Blackwall Reach energy monitoring. 5) Bring our existing CHP (Combined Heat & Power) systems on to an ESCO (Energy Services Company).	<ul style="list-style-type: none"> Review external opportunities & submit a paper accordingly/ secure all necessary approvals for such funding. Review Swan's stock condition survey and define a matrix of key asset products. Review identified properties annually for suitability (report no.s) – stock condition survey Complete 1 pilot research project with residents (Blackwall) O&M agreement operational and ensure systems are up to EON specification 	<ul style="list-style-type: none"> Commence rollout of retrofit programme if applicable. Monitor and report progress/ savings Implement alternative specifications that offer long term VFM & – phase into new developments Properties identified to have poor insulation to be retrofitted. Commence works Complete a further 1 pilot projects with residents - report & communicate findings/savings Launch into full ESCO agreement after year 2 for 5 existing sites 	<ul style="list-style-type: none"> Identified retrofit opportunities complete. Report on no's installed and savings associated. Bi-annual review of products to ensure links with development/ assets and VFM Properties identified to have poor insulation to be retrofitted. Complete works on all identified. Completion of 3 pilot projects over 5 year period with results and savings communicated Fully operational ESCO with EON with new schemes being added to Swan's portfolio 		Assets/ Compliance/ Green Team Compliance Compliance Development CHP Task Group
	Comms	6) Increase communication with residents on energy saving e.g. energy switching.	<ul style="list-style-type: none"> Estate newsletters (via email) & virtual The Communicator 	<ul style="list-style-type: none"> Estate newsletters (via email) & virtual The Communicator articles 	<ul style="list-style-type: none"> Estate newsletters (via email) & virtual The Communicator articles 		Development/ customer facing

<p>2. Our Offices & Construction sites</p> <p>Achieve a 20% reduction in CO2 emissions by 2021 (4% per annum).</p>	<p>Sales & Marketing</p>	<p>7) Incorporate a CRM system for sales and marketing and expand into other departments.</p> <p>8) Incorporate environmental UPS selling features into sales and marketing collateral</p>	<p>articles on energy related matters x 2 each/ year.</p> <ul style="list-style-type: none"> Sales and marketing utilising system as a customer portal Integrate selling features into home buyers guides & website (update accordingly for all developments). 	<p>on energy related matters x 2 each/ year.</p> <ul style="list-style-type: none"> Roll-out CRM system to customer care team to have an integrated approach Integrate selling features into home buyers guides & website (update accordingly for all developments). 	<p>on energy related matters x 2 each/ year.</p> <ul style="list-style-type: none"> Roll-out to the development team to have a whole lifecycle approach Integrate selling features into home buyers guides & website (update accordingly for all developments). 	<p>teams</p> <p>Sales and Marketing</p> <p>Sales and Marketing/ Development</p>
	<p>Electricity & Gas</p>	<p>Offices</p> <p>9) Energy saving switch-off schemes roll out across offices to challenge staff behaviour and reduce office energy consumption.</p> <p>10) Review Laser Energy brokerage contract in 2016 when it is up for renewal to look at the potential of procuring renewable energy.</p>	<ul style="list-style-type: none"> Introduce energy saving initiative across two offices as trial (monitor savings and communicate) Cost/benefit analysis of procuring all green energy for our portfolio 	<ul style="list-style-type: none"> Roll out across remainder of offices if successful, create office league table and monitor results & savings Swan's energy to be sourced from 100% green (if financially viable) 	<ul style="list-style-type: none"> All offices engaged fully with energy saving initiatives and savings calculated. Swan's energy to be sourced from 100% green (if financially viable) and report offsets (GHG methodology) 	<p>Facilities/ Green Team</p> <p>Facilities</p>
	<p>Procurement</p>	<p>Construction sites</p> <p>11) Ensure our welfare facilities are energy efficient e.g. PIR lighting as standard in strategic places e.g. toilets</p>	<ul style="list-style-type: none"> Review our site assets to identify and list improvement areas. Cost/benefit 	<ul style="list-style-type: none"> Phase in new efficient facilities on new projects accordingly 	<ul style="list-style-type: none"> All site accommodation and associated to be energy efficient 	<p>Nu- Living/ Development</p>

Achieve a 20% reduction in CO2 emissions by 2021 (4% per annum).

	Offices	12) Ensure annual checks are made on suppliers to ensure that they are environmentally compliant (i.e. up to date policy and no recent environmental prosecutions)	<ul style="list-style-type: none"> Review current procurement procedure (sustainability aspects) 	<ul style="list-style-type: none"> Develop a process for ensuring checks are made on an annual basis for the correct and up to date documentation. 	<ul style="list-style-type: none"> Checks are made on an annual basis for the correct and up to date documentation. 		BIU/Compliance
	Construction Sites	13) Review product/material and compare to BRE's Green Book specification guide to see if we can improve on materials used to reduce embodied carbon impacts.	<ul style="list-style-type: none"> Review products on current specification and look at our top 10 impact products to suggest alternatives. Cost/benefits analysis if applicable 	<ul style="list-style-type: none"> Incorporate green products into our specification where viable & incorporate into ERs. 	<ul style="list-style-type: none"> Incorporate green products into our specification where viable. 		Nu- Living/ Development
Diesel		14) Secure alternative source of diesel for our sites to reduce costs/ site usage (current cost 95p/litre)	<ul style="list-style-type: none"> (Reduction to 50p/litre). Capture savings and track/ sites 	<ul style="list-style-type: none"> Capture savings associated with new procurement (scheme specific) 	<ul style="list-style-type: none"> Savings collated (5 years) and associated report. Saving reported is the saving made from the conversion to 0.50p/ litre 	£56,250	Nu- Living/ Development
Water	Construction sites	15) Campaign amongst site staff on site with poster and reminders	<ul style="list-style-type: none"> Relevant communications to site staff. Introduce rewards for staff. 	<ul style="list-style-type: none"> Relevant communications to site staff 	<ul style="list-style-type: none"> Relevant communications to site staff 		Nu-Living/ Development
Transport	Offices & Construction sites	16) Encourage sustainable transport and promote car sharing via car sharing mileage incentive	<ul style="list-style-type: none"> Promotion of 2 sustainable travel cygnet posts and any savings communicated to staff 	<ul style="list-style-type: none"> 6 articles to residents and 3 to staff. Rewards from sponsors and partners. 	<ul style="list-style-type: none"> 6 residents to residents 3 to staff 		Development

Achieve a 20% reduction in CO2 emissions by 2021 (4% per annum).

		<p>17) Encourage video conferencing to avoid unnecessary journeys across the business. Pilot Webex conference facilities internally.</p> <p>18) Encourage use of Swan's Cycle to work scheme to reduce impact on getting to and from the office (25 currently)</p> <p>19) All Swan leased vehicles to be fitted with a tracker and calibrator (to limit speed to 70mph) allowing full monitoring. Leased vehicles will be reviewed periodically to ensure they are as efficient as possible. Explore opportunity for Electric vehicles.</p> <p>20) Eco-driving training undertaken annually to reduce emissions and encourage efficient driving mpg.</p>	<ul style="list-style-type: none"> Promotion internally and encourage staff to fill in video conference spreadsheet & sheet in all video conf rooms on how to use facility. Increase sign-ups to 30 Cost/benefit analysis for bringing HIA rapid response on to the tracking GPS system & calibrations. Business case. Annual review of vehicles. All new Estates and HIA staff to undertake training. Monitor performance. 	<ul style="list-style-type: none"> Record savings associated with journeys saved (communicate) Increase sign-ups to 35 All vehicles leased by Swan to have a tracker fitted. Monitor mileage. Annual review of vehicles. All new Estates and HIA staff to undertake training. Monitor performance. And achieve a 15% reduction. 	<ul style="list-style-type: none"> Record savings associated with journeys saved (communicate). Year 14/15 Swan saved £1964. Increase sign-ups to 45 All vehicles leased by Swan to have a tracker 7 calibrator fitted. Monitor mileage. Annual review of vehicles. All new Estates and HIA staff to undertake training. Monitor performance. 	<p>Approximately £6000 saved (avoided staff mileage, travel claims).</p>	<p>Development/BIU/Comms</p> <p>Development/Comms/HR</p> <p>HIA</p> <p>Estates & HIA</p>
	<p>Ecological Improvements</p>	<p>Offices</p> <p>21) Undertake ecological enhancements of 2 office locations & 2 estate areas</p>	<ul style="list-style-type: none"> Identify 2 office and estate locations to improve and link with Get Involved schemes. Completion of 1 improvement 	<ul style="list-style-type: none"> Undertake enhancements to two other locations and document 	<ul style="list-style-type: none"> Completion of 4 ecological improvements across estates and offices. 		<p>Green Team & 'Get Involved' scheme</p>

Achieve a 20% reduction in CO2 emissions by 2021 (4% per annum).	Construction Waste	22) Integrate BRE SMARTwaste onto all our live sites across the business with waste contractors filling in data at source.	<ul style="list-style-type: none"> Secure approval for BRE Smartwaste system. 	<ul style="list-style-type: none"> Introduce new online monitoring tool on all new sites. Provide appropriate training and correspondence with waste contractors 	<ul style="list-style-type: none"> All operational sites to be operating the BRE SMART waste Tool 	£62,500	Nu-Living & Development
		23) Explore savings through transfer of waste contractor and look for further opportunities for waste segregation.	<ul style="list-style-type: none"> Transfer to new waste contractor for all existing and new sites and collate savings associated (£80/ lift) 	<ul style="list-style-type: none"> Record savings year upon year – revise contractor periodically. 	<ul style="list-style-type: none"> Record savings year upon year – revise contractor periodically. 	£136,320	Nu-Living
		24) Explore the application of EDOC (Electronic Duty of Care) waste transfer system to reduce paper usage on all sites	<ul style="list-style-type: none"> Gain buy-in from waste contractors. Trial on one new site. Train those using the system. 	<ul style="list-style-type: none"> EDOC system operational across all new sites. Add into ERs 	<ul style="list-style-type: none"> Incorporate any new waste contractors onto the EDO system. Track savings on purchasing and usage 		Nu-Living
		25) Transition towards BIM level 2 inclusion with designated architects in the design & delivery (links with Regeneration and Development Strategy)	<ul style="list-style-type: none"> Monitor use of BIM on Laindon, lessons learnt and feedback to regeneration team 	<ul style="list-style-type: none"> If successful move to increase use on other sites subject to viability 	<ul style="list-style-type: none"> Incorporate BIM into all new projects subject to viability. All framework architects to be using BIM. 		Nu-Living/ Development
Achieve a 20% reduction in CO2 emissions by 2021 (4% per annum).	Estates Waste	26) Monitor and measure incidents of fly-tipping and bulk waste incidents on all our estates and work closely with the local boroughs to increase council collections Reduce by 20% over 5 years. Current spend approx. 35k	<ul style="list-style-type: none"> Monitor incidents, report monthly and heighten communication with residents on disposal of waste locally. 	<ul style="list-style-type: none"> Monitor numbers towards 20% target. Achieve at least a 12% reduction. 	<ul style="list-style-type: none"> Monitor numbers towards 20% reduction target. Achieve 20% reduction target 	£7000	Estates
	Office Waste	27) Reduce paper usage and purchasing across all offices by introducing follow-me printing across all offices	<ul style="list-style-type: none"> Phase in follow-me printing Autumn 2016. Monitor savings. 	<ul style="list-style-type: none"> Monitor savings associated re: purchasing & usage 	<ul style="list-style-type: none"> Monitor savings associated re: purchasing and usage 	£5250	Facilities