



South West London
Health & Care
Partnership

The South-West London Green Plan

James Murray

Transition Board – March 2022

Executive Summary

- We are seeking the Board's approval of this 2022/23 SW London Green Plan
- The plan will be updated annually, and progress will be measured and shared at least every six months
- We are allocating SWL resource to support this Green Plan
- While the plan identifies a 2022/23 investment of c. £730k to coordinate the priority activities, it may be possible to attract funding from non-system sources for some of this activity
- The first priorities of this plan are to engage all our staff with our stated commitments, supported with a set of personal sustainability pledges we will be looking for all leaders to make

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Introduction

- **South West London** covers 296 km²
- It covers 6 London Boroughs: Croydon, Kingston, Merton, Richmond, Sutton & Wandsworth
- There are 8 acute & community providers (Central London Community Healthcare, Croydon Health Services NHS Trust, Epsom & St Helier University Hospitals NHS Trust, Hounslow & Richmond Community Healthcare, Kingston Hospital NHS Foundation Trust, The Royal Marsden Foundation Trust, St George's NHS Foundation Trust & Your Healthcare)
- There are 2 mental health providers (South West London & St George's Mental Health NHS Trust & the Maudsley NHS Foundation Trust)
- The resident population is 1,505,000, projected to grow by 10% by 2029 and a further 6% by 2039; however, we treat many more people than this annually
- 21% are under 16 (growing by 3% by 2039), 13% are over 65 (growing by 59% by 2039)
- Roughly 35% of population in 2019 were from Black, Asian or Minority Ethnic groups (though estimated to grow by 29% by 2039)



- “Delivering a net-zero National Health Service” was published in October 2020, setting out trajectories and actions for the entire NHS to reach net zero carbon emissions by 2040 for the emissions it controls directly, and 2045 for those it can influence
- Each trust is mandated to have a Board-approved Green Plan by January 2022, and each ICS to have a Board-approved plan by April 2022
- Having replaced the previous Sustainable Development Management Plans (SDMPs) in 2020, the new suite of Green Plans is expected to match the increased net zero ambition and renewed delivery focus, with three clear outcomes:
 - ensure every NHS organisation is supporting the NHS-wide ambition to become the world’s first healthcare system to reach net zero carbon emissions
 - prioritise interventions which simultaneously improve patient care and community wellbeing while tackling climate change and broader sustainability issues
 - support organisations to plan and make prudent capital investments while increasing efficiencies
- Quarterly data collections are now in operation to support the monitoring of progress, and guidance as to how to complete a Green Plan was published in June 2021.

South West London “Green Vision”



- We in SWL recognise that the climate change emergency is a health emergency too
- Heatwaves, flooding and dangerous levels of air pollution are harming London’s population today, and it is only going to get worse
- We recognise that through our operations and influence, we are currently part of the problem, and we are committed to making the necessary changes required to help deliver the world’s first net zero national health service
- We are committed to four areas of focus:
 1. Deliver on the targets set centrally
 2. Create costed, measurable, Board-approved sustainable action plans on a rolling 18-month basis that will materially improve the sustainability of our services
 3. Seek actively a number of innovations that make use of our existing assets, resources and circumstances that go beyond centrally-defined targets
 4. Co-ordinate activities and communications that will help change the behaviours of our people - both when they work and when they are not working.

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There are 10 areas of focus for 2021/22

Workstream	Deliverable	Regional Ambition
Governance	All Trusts & ICSs to have Green Plans and Board leads	April 2022
Medicines	Every Trust to reduce use of desflurane in surgery to less than 10% of total volatile anaesthetic gas use, by volume	April 2022
	Support patient choice of less carbon-intensive inhalers (e.g. dry powder) where clinically appropriate	2% reduction in emissions by March 2022
	Develop schemes for green disposal of inhalers	No target defined
	Optimise use of medical gases, including reduction of waste and prevention of atmospheric release of medical gases	System in place by April 2022 to reduce nitrous oxide waste
	Travel & Transport	Only ULEV or ZEV cars purchased or leased (+ vans less than 3.5 tonnes)
	Only ULEV or ZEV car salary sacrifice schemes available	April 2022
	Put in place a green travel plan (for staff, patients & visitors), a cycle-to-work lead, and cycle-to-work salary sacrifice scheme, with appropriate onsite facilities	April 2022
	At least 25% outpatient activity to be delivered remotely	April 2022
Estates & Facilities	Trusts to purchase only renewable electricity	April 2022

Across SWL, each Provider is in line with delivering on these areas of focus, with some minor exceptions

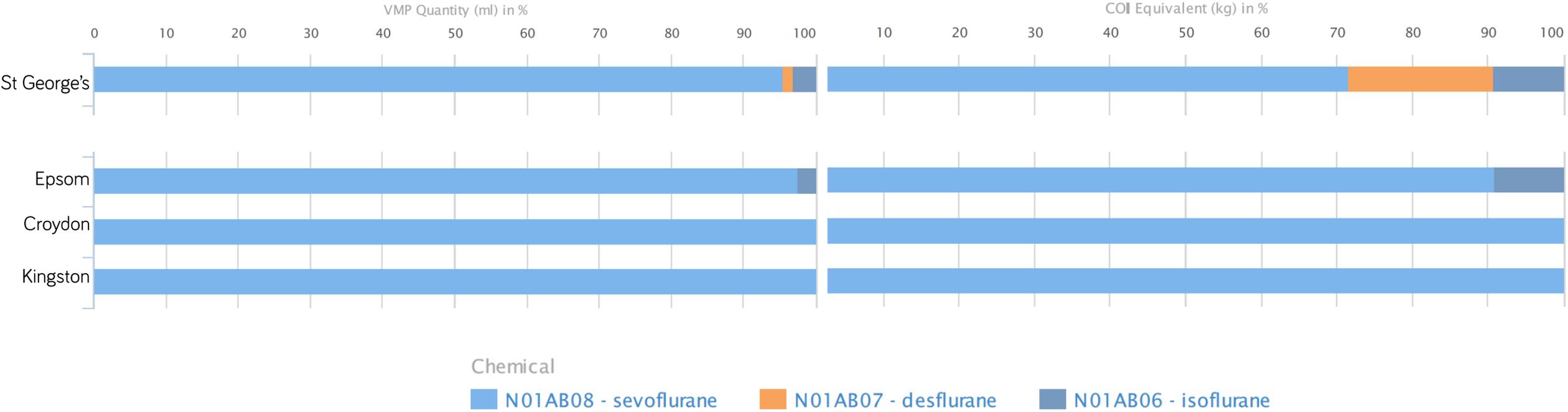


Provider	Board Lead for Sustainability	Board-approved Green Plan	Desflurane Usage	Dry inhalers	Inhaler disposal	N2O reduction	ULEV/ZEV car purchase /lease policies	Car salary sacrifice scheme	Green travel plan	25% remote consultations	Renewable electricity
ICS	✓	✓	✓	Agreed 2022 focus for SWL	Agreed 2022 focus for SWL	Agreed 2022 focus for SWL	N/A	N/A	✓	N/A	To Be Confirmed
CLCH	✓	✓	N/A	as above	as above	as above	✓	✓	Q4 21/22	✓	✓
Croydon	✓	✓	✓	as above	as above	as above	✓	✓	✓	✓	✓
Epsom	Trevor Fitzgerald	To Be Confirmed	✓	as above	as above	as above	PTS Vehicles Hybrids	To Be Confirmed	Q3/4 21/22	Q3/4 21/22	To Be Confirmed
HRCH	✓	To Be Confirmed	N/A	as above	as above	as above	To Be Confirmed	To Be Confirmed	To Be Confirmed	To Be Confirmed	To Be Confirmed
Kingston	✓	26 th Jan	✓	as above	as above	as above	✓	To Be Confirmed	To Be Confirmed	To Be Confirmed	✓
Royal Marsden	✓	✓	✓	as above	as above	as above	No	No	✓	✓	✓
St. George's	✓	✓	✓	as above	as above	as above	✓	✓	✓	✓	✓
St George's Mental Health	To Be Confirmed	To Be Confirmed	N/A	as above	as above	as above	To Be Confirmed	To Be Confirmed	To Be Confirmed	To Be Confirmed	To Be Confirmed
Primary Care	N/A	N/A	✓	as above	as above	N/A	To Be Confirmed	To Be Confirmed	✓	✓	To Be Confirmed

Desflurane Usage – all SWL Trusts are below the 10% target



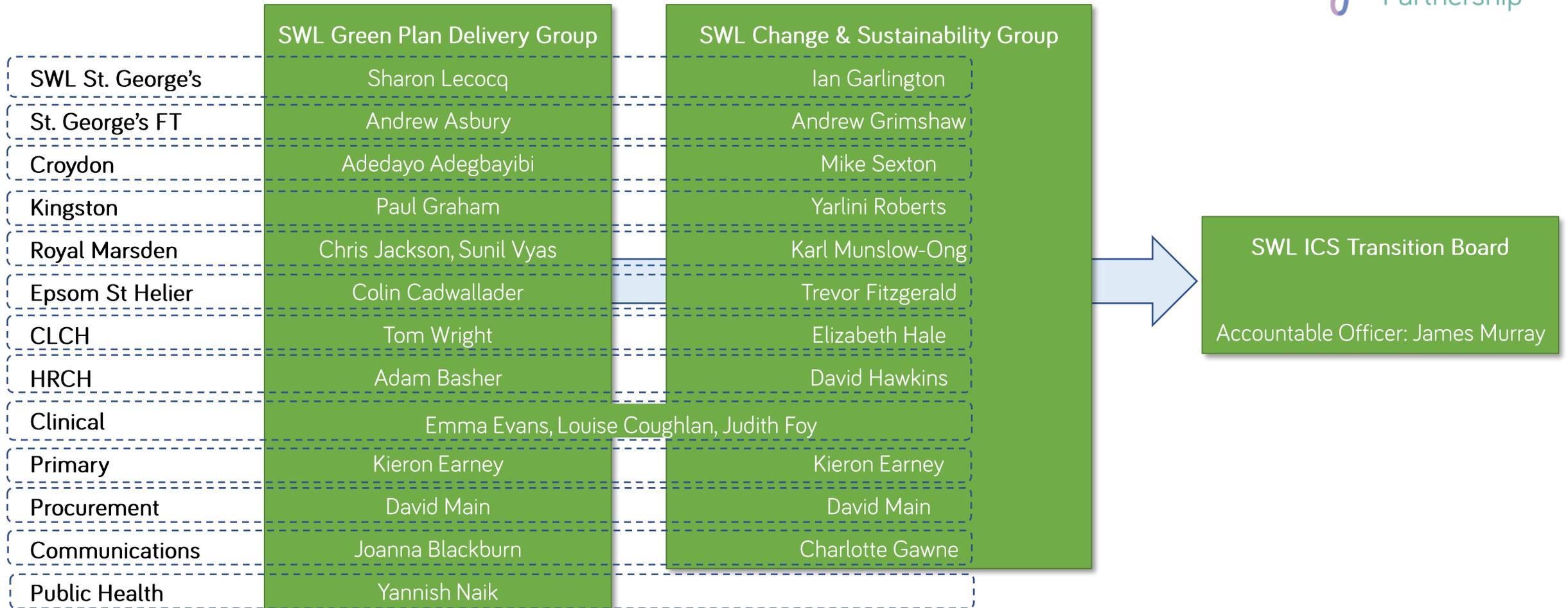
October - December 2021 data



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SWL Governance Structure



- ✓ Meet once a month
- ✓ Share best practice, agree opportunities for collaboration, agree detail of plan

- ✓ Meet once a quarter
- ✓ Review Green Plan and agree priorities and investment proposals

- ✓ Approve Green Plan
- ✓ Monitor status and present as needed

Roles of individuals within this governance structure



Provider	Name	Roles
SWL & St. George's MHT	Sharon Lecocq	EMP Liaison Team, Estates & Facilities
	Ian Garlington	Integrated Programme Director
St George's	Andrew Asbury	Director of Estates & Facilities
	Andrew Grimshaw	CFO
Croydon	Adedayo Adegbayibi	Sustainable Delivery Manager
	Mike Sexton	Joint CFO
Kingston	Paul Graham	Utilities, Waste and Sustainability Manager
	Yarlini Roberts	CFO
Royal Marsden	Chris Jackson	Head of Facilities
	Sunil Vyas	Director of Projects and Estates
	Karl Munslow-Ong	COO
Epsom and St Helier	Colin Cadwallader	Associate Director, Estates & Facilities Operations
	Trevor Fitzgerald	Director of Estates, Facilities & Capital Projects
SWL Alliance	James Murray	CFO

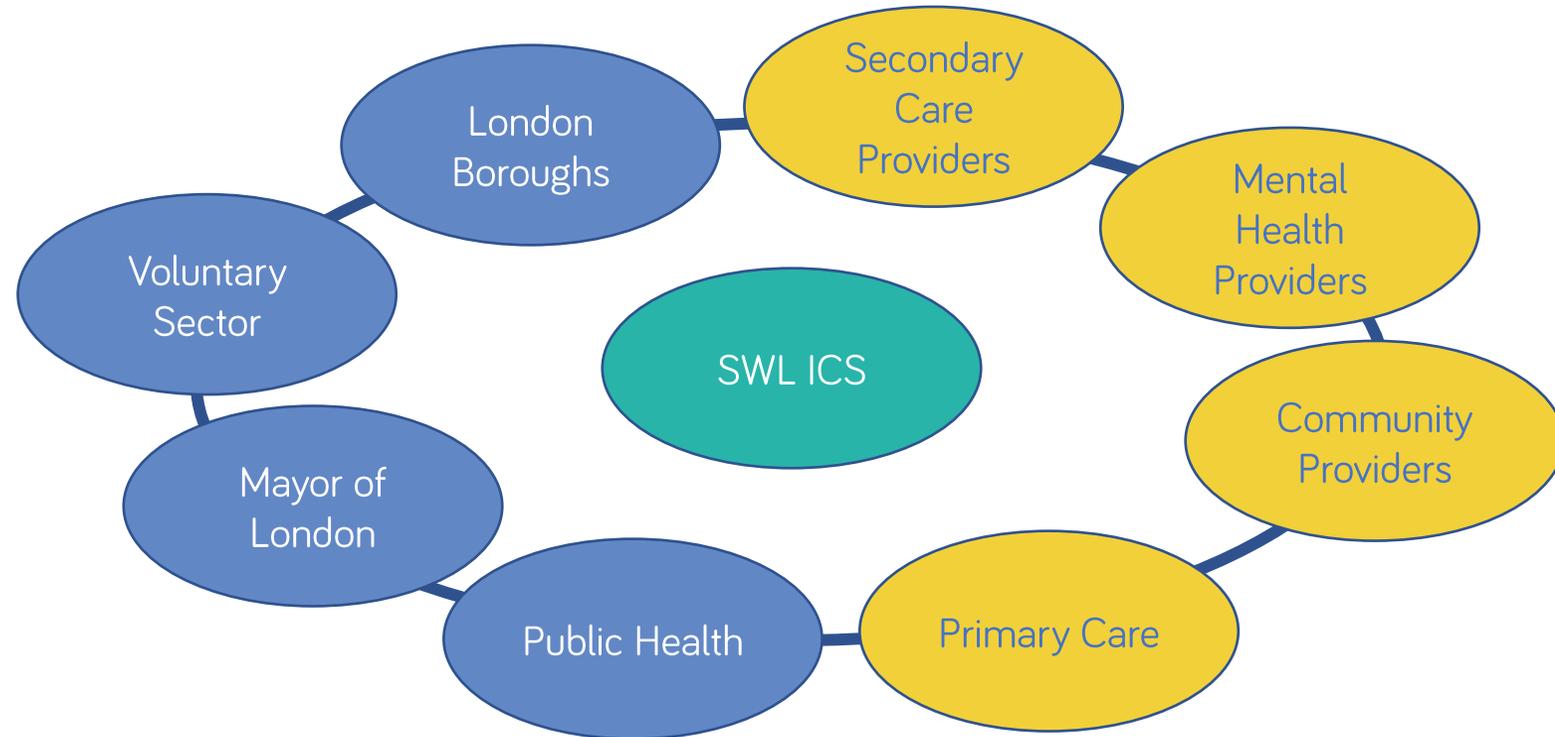
Provider	Name	Roles
CLCH	Tom Wright	Acting Director of Sustainability
	Elizabeth Hale	Director of Improvement
HRCH	Adam Basher	Associate Director of FM & Projects
	David Hawkins	Deputy CEO
Clinical	Emma Evans	Consultant Anaesthetist (St George's)
	Louise Coughlan	Chief Pharmacist (Croydon)
	Judith Foy	Chief Pharmacist (Kingston)
Primary	Kieron Earney	GP, Putney mead Medical Practice
Procurement	David Main	Director of Procurement – Commercial (SWL)
	Catherine Andrews	NHS Supply Chain
SWL Communications	Charlotte Gawne	Executive Director of Communications & Engagement
	Joanna Blackburn	Director of Communications & Engagement Delivery
London Sustainability Network	Emily Webster	Senior Programme Manager, London Clinical Senate
Public Health Merton	Yannish Naik	Consultant in Public Health

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As we start to focus on making change happen, we recognise that we are part of a wider system

- During the development of this first SWL Green Plan, we have focused on ensuring stakeholders within the NHS system (e.g. GP networks) are engaged and committed to the targets we have set
- During the upcoming 12 months, we now need to focus on our wider stakeholder population, participating in or leading system-wide initiatives where relevant
- We are often an anchor institution in a location and therefore what we do makes a difference to the local communities we serve



In particular, we will need to support each provider in integrating and aligning with their relevant Borough



Croydon – declared a climate emergency in July 2019 and has committed to become carbon neutral in its operations by 2030 – more information on their plan can be found in the link [here](#)

Kingston – declared a climate emergency in June 2019, and has committed to become carbon neutral in its Council operations by 2038 – more information on their plan can be found in the link [here](#)

Merton – declared a climate emergency in July 2019, and has committed for the Council to become carbon neutral by 2030, and the borough by 2050 - more information on their plan can be found in the link [here](#)

Richmond – declared a climate emergency in July 2019, and has committed to become carbon neutral in its Council operations by 2030 – more information on their plan can be found in the link [here](#)

Sutton – declared a target of being London’s most sustainable borough, has declared a climate emergency, and has committed to become carbon neutral in its Council operations by 2038 – more information on their plan can be found in the link [here](#)

Wandsworth – declared a climate emergency in June 2019, and has committed to become carbon neutral in its Council operations by 2030 – more information on their plan can be found in the link [here](#)

SWL is adopting the Greener NHS Team's recommendation that each Green Plan should have at least 9 areas of focus



1. Workforce & system leadership

2. Sustainable models of care

3. Digital transformation

4. Travel & transport

5. Estates & facilities

6. Medicines

7. Supply chain & procurement

8. Food & nutrition

9. Adaptation

We have also adopted a set of principles in building our Green Plan



1. At a South-West London level, our plans and areas of activity should complement whatever plans providers adopt
2. We will create stretching but feasible targets that, at a minimum, meet centrally set standards
3. We will focus on activity to make a change, not targets set too far in the future
4. We will focus on activity that facilitates both personal behaviour change as well as those initiatives that will have a material impact on reducing carbon emissions
5. We have an appetite to innovate if the right opportunity/opportunities can be found
6. We see the opportunities to integrate activities identified within this Green Plan with existing ICS-sponsored streams of work (e.g. digital strategy, estates strategy) – we will ensure that we avoid duplication of activity to achieve the change identified

We have picked out the following highlights from our provider Green Plans (1)



	Croydon	Royal Marsden
Achievements	<ul style="list-style-type: none"> • Reduced CO2 by 18% (c 14k tonnes) since 13/14 baseline • Estate-wide LED replacement programme • Replacement of heating calorifiers with plate heat exchangers • Successful Salix funding applications for infrastructure programme • Desflurane usage reduced in advance of centrally-recommended targets 	<ul style="list-style-type: none"> • 33% decrease in gross CO2 emissions between 09/10 and 20/21 • Zero waste to landfill • Half a tonne of unwanted linen, uniforms and curtains recycled/re-used • 91% of anaesthesia given was TIVA • Scavenging system in place for waste gases • No single-use plastic straws or cutlery or water cooler cups
Risks	<ul style="list-style-type: none"> • Reliance on CHP plant at least until 2028 	<ul style="list-style-type: none"> • Reliance on CHP infrastructure
Targets	<ul style="list-style-type: none"> • Become rated excellent on the Clean Air Hospital Framework with a score of 70% • Reduce road traffic through the “School Streets” scheme • Improve site-wide planting and development/use of green space • Introduce food recycling, reduce food waste & look to source seasonal/local food • Investigate solar and battery power • Reduce nitrous oxide by 40% by 2026 • Trial an electric ambulance • Minimise use of and find alternatives to refrigerant gases • Engage in water reduction programme • Eliminate waste to landfill and reduce use of single-use plastics 	<ul style="list-style-type: none"> • Convert fleet and pool vehicles to fully electric & install charging points across the site • Achieve BREEAM excellent ratings for new builds (Oak Cancer Centre), and very good for refurbishments • Develop targets to increase amount of healthy, sustainable and locally sourced food • Conduct Green Matters forums every two months to engage staff on all sustainable matters

We have picked out the following highlights from our provider Green Plans (2)



	St. George's	Kingston
Achievements	<ul style="list-style-type: none"> • One of only two Trusts to achieve sustainability accreditation with The Planet Mark • Use of seeing room and uniform recycling • Green travel plan updated together with detailed work progressing on infrastructure improvements • Appointed new energy brokers and achieving 100% renewable buy-in from grid • Established new internal Green Committee • Joined Mayor of London's group for sustainable development • Appointed consultants to produce detailed carbon reduction targets and assessments of contributions from our community estate 	<ul style="list-style-type: none"> • Contracted to provide the NHS's first battery energy storage solution capex free. • Replaced calorifiers with efficient plate heat exchangers. • Engaged with Kingston Council on their District Heating Network proposal. • Implemented mixed recycling in Theatres for sterile packaging thanks to our Theatre Greens group.
Risks	<ul style="list-style-type: none"> • Reliance on CHP boilers (gas is 66% of site's fuel costs) with c. 11-12 years' life left 	<ul style="list-style-type: none"> • Reliance on CHP infrastructure
Targets	<ul style="list-style-type: none"> • Optimise the Building Management System and undertake an LED replacement programme • Deploy DEC's and EPC's for all buildings • Phase out single-use plastic • Green space and biodiversity strategy to be written 	<ul style="list-style-type: none"> • Quantify the carbon benefits of the transition to an all-electric pool fleet • Design all new building projects to BREEAM standards of sustainability • Produce a heat decarbonisation plan

We have picked out the following highlights from our provider Green Plans (3)

	CLCH
Achievements	<ul style="list-style-type: none"> • Energy efficiency measures modelled across 15 tier 1 (owned) and 84 tier 2 (leased) sites • CLCH purchases 100% renewable electricity contracts with REGO certificates for its tier 1 sites and 20 tier 2 sites • Governance in place to manage the Green plan • Detailed calculation of NHS carbon footprint for Trust with breakdown by segment • Board approved pathway for reduction in line with NHS targets • Switched to 100% recycled paper • All new vehicle leases switched to 100% electric
Risks	<ul style="list-style-type: none"> • Reliance on 3rd party landlords to invest in infrastructure to eg decarbonise heat and electricity
Targets	<ul style="list-style-type: none"> • No fossil fuels for CLCH fleet by 2025 • Invest in water wastage monitoring and invest in repair and maintenance programme • Conduct complete LED replacement programme • Investigate on-site energy generation • Replace Trust vehicles sustainably • Recycle NHS furniture • Maintain and develop green spaces via a biodiversity and green space strategy • Decarbonise heating and hot water from all Trust Tier sites by 2027-2030

Across the nine areas of focus, we have agreed the following seven 2022 priorities at an SWL ICS level



1. Kick-start a focus on our sustainability plans via a series of leadership and staff pledges
2. Use only recycled paper in SWL, and reduce total paper usage year-on-year
3. Create recycling points for MDIs in all GP surgeries and community pharmacies, and ensure clinical guidance on appropriate inhaler usage is clear and helps reduce MDI prescriptions
4. Cut out all N2O wastage/leakage by 2023
5. Keep desflurane usage to below 3% in 2022
6. Go electric for patient, inter-site and courier transport by 2027
7. Reduce carbon emissions from buildings by 20% vs. 2020 by 2025¹

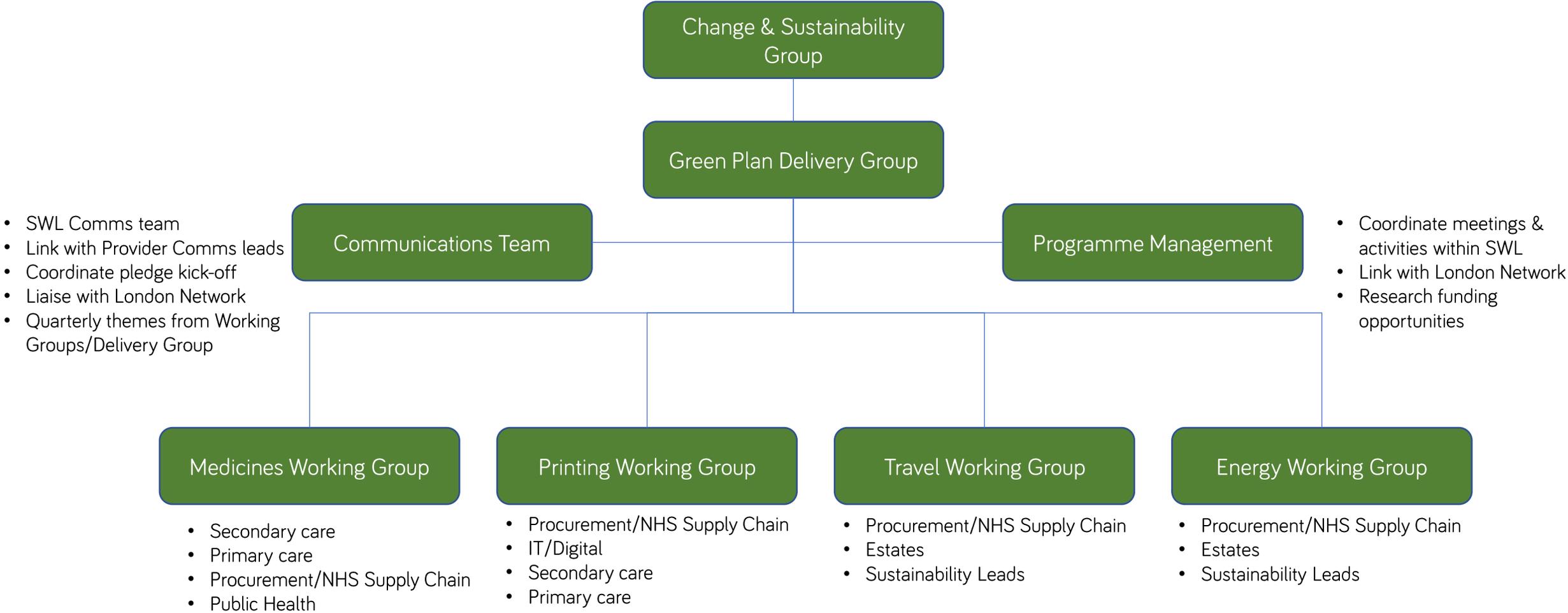
1. *Target dependent on implementation of SWL property strategy, which targets a reduction in total buildings in SWL*

These priorities follow our principles defined earlier in helping nudge behaviour and impact carbon emissions

Priority	Behavioural Impact	CO2e Impact
Set pledges	●	⦿
Reduce printing	◐	⦿
Maintain desflurane usage ¹	◐	◑
Reduce Nitrous leakage ¹	◐	◑
Reduce M-D Inhalers ²	●	●
Electrify transport	◑	◑
Reduce carbon emissions from buildings ³	⦿	●

- 1 Anaesthetic gases are responsible for 10.5 tonnes of CO2e emissions in SWL (7.5% of total SWL core footprint emissions)
- 2 Inhalers are responsible for 18.2 tonnes of CO2e emissions (just over 13% of the total)
- 3 Burning gas is responsible for 61 tonnes of these emissions, which is 78% of the total produced through buildings energy

In order to deliver to these priorities, we have set up the following working groups to manage progress



There are some common initial activities that each working group will develop



- The SWL Medicines Working Group has been operating for six months and provides a template for the other teams around how to:
 - Agree specific goals and scope of activity
 - Identify correct people to engage with
 - How often to meet to ensure progress
 - What activities can be progressed without additional funding
 - What funding is required to deliver the targets
- Certain areas of focus (e.g. nutrition) will not be managed through a working group, but will be picked up by the centrally-funded ICS team until both the opportunity becomes material and there are people with sufficient passion and focus to make the required changes happen

1. Workforce & System Leadership – James Murray

Objective

To ensure that we engage all staff within the ICS and undertake activities, set up structures and create groups of engaged, interested and passionate staff that will help to change both work-based and personal behaviour.

Commentary

It is a key area of focus that during this first year of the Green Plan, staff and senior leadership are engaged and become aware of the objectives of the Green Plan. The ICS will help providers to collaborate where appropriate and will embed sustainability principles into its core policies so that these can form the basis of other engagement activities.

At an ICS level, ongoing monitoring as to what is gaining traction will be performed so that if there is benefit in supporting any given sustainable initiative at a broader level, this will be done. Equally, a review of processes (e.g. induction, training etc) will be undertaken to ensure that a sustainability focus is embedded wherever relevant.

SWL Actions	Timeframe
Establish a communications plan for leadership pledges to be committed to and publicised	Q1 2022
Working Groups to be set up and diarised through the year to manage priority areas of focus	Q1 2022
Run the Delivery and Change groups to maintain and monitor progress	2022
Engage Chief Executives, ICS Leadership team and Board at appropriate times	2022
Develop and implement a costed sustainability communications and engagement plan	Q1 2022
Establish the appropriate resources to deliver the Green Plan	2022
Engage with wider stakeholders (eg London Sustainability Network) to learn lessons and share best practice	2022

2. Sustainable Models of Care - tbd



Objective

To ensure that current & future models of care take into account their impact on people and the planet, and have overall improvement of public health at their heart

Commentary

We recognise that we need to include sustainability and resource stewardship in all of our efforts to make clinical quality improvements. In SWL, we have adopted four principles to cover the scope of this activity, which have also governed our decisions over which activities to prioritise for 2022:

1. **Prevention** – through focusing on the causes of illness, rather than simply symptoms, we will reduce the risks of illness and therefore the numbers using SWL services over time e.g.
 - With a focus on air quality & provision of green spaces to help prevent respiratory diseases
 - By focusing on social prescribing for people with mental health issues
2. **Patient Empowerment** – to support care at home and with an ability to take greater control for their own health
3. **Lean Service Delivery** – to ensure that we review clinical pathways from end-to-end and make improvements by reducing low-value activities, or preventing waste at all stages
4. **Low Carbon Alternatives** – we will embed a set of sustainability measures in the evaluation of medicines, medical technologies and equipment.

It is recognised that there are existing workstreams reviewing aspects of this, and so we will ensure that any sustainability activity is integrated into those existing workstreams where appropriate.

SWL Actions	Timeframe
Nominate a lead to undertake work required to improve sustainable models of care	Q1 2022
Review existing work that is addressing the 4 principles within SWL	Q1 2022
Coordinate where relevant around air quality and green spaces between providers	Q2 2022
Create a plan for developing sustainable models of care across SWL	Q3/4 2022

3. Digital transformation & reducing paper usage – David Main



Objective

Within the digital opportunity, 2022 will be focused at an ICS level in reducing the amount of paper used by the ICS in total.

Commentary

We will commit to using existing infrastructure and tools to embed good sustainable choices, that will reduce paper, and also continue to monitor Trust and ICS-level digital developments to understand what impact any initiative might have on sustainable practices (e.g. working from home and measuring the correlating reduction in travel miles that might result in this focus).

The scope of the reduction in paper will cover both paper printed for staff as well as reviewing paper records and postage to patients.

SWL Actions	Timeframe
Identify a lead to monitor % of outpatient activity that is delivered remotely across ICS	Q1 2022
Identify how much paper is distributed “direct-to-desk” as opposed to via Supply Chain	Q1 2022
Identify total amount of paper used in 2020, 2021 and run rate for 2022 – who, where and what, if any, is not recycled	Q1 2022
Create plan to reduce paper usage and identify which printers could/should be de-commissioned	Q2 2022
Engage communications team to create comms to nudge behaviour throughout ICS	Q2/3 2022
Execute plan to reduce paper	Q3/4 2022

4. Travel and transport – Andrew Asbury & Trevor Fitzgerald



Objective

Reduce carbon emissions from staff, patient, visitor and supplier transport

Commentary

Across SWL, there is an opportunity, particularly in patient and courier transport, to take advantage of the systemic changes that are going on to address the key areas in this space – namely, passenger transport for Epsom and St. George’s is being merged, and the majority of the courier usage is undertaken by the SWL Pathology function.

We will focus on educating our staff on the benefits of taking up alternative travel options given policies that are already in place e.g. cycle-to-work schemes

We will work with other stakeholders in London to ensure that we review the procurement opportunities for investing or supporting in electric transport options between sites.

Finally, we will work with other stakeholders to support the broader need to improve the air quality in London and particularly around our operations.

SWL Actions	Timeframe
Establish working group and diarise meetings	Q1 2022
As Epsom and St George’s merge patient transport services, determine feasibility of electric transport and charging points at premises to be set up	Q1 2022
Engage SWL Pathology to determine feasibility of electrifying the majority of our courier service	Q1 2022
Undertake engagement sessions with staff across the ICS to understand current transport methods, and what it would take to travel in a greener way	Q2 2022
Advertise and recommend existing greener travel options for staff	Q2 2022
Create a costed plan to redesign and reconfigure visiting and staff car parks and transport hub facilities	Q3/4 2022

5. Estates and Facilities – Andrew Asbury & Trevor Fitzgerald

Objective

Reduce carbon emissions from buildings by 20% vs. 2020 figure by 2025

Commentary

All major building work underway in NHS is aiming for BREEAM certification of either Excellent or Outstanding– we are committed to ensuring all future renovation work and new build will attain these standards as a minimum, while also acknowledging local authority nuances and requirements for each provider

We will ensure that all of our buildings have energy monitoring and management systems in place, and that across the region, we will purchase only renewable energy when that is required

With the number of older buildings that we have, and our reliance on CHP Boilers, we will review how we can reduce our reliance on gas in a commercially sustainable way

We are working in conjunction with the SWL Estates strategy to determine how much of the current estate in SWL is required, and for what purpose

We will also invest in water, gas and waste monitoring systems, and ensure that we improve our use of water, reduce leaks, and increase appropriate recycling processes.

SWL Actions	Timeframe
Establish Working Group to manage buildings opportunities	Q1 2022
Integrate plan with any estates strategy in reducing SWL buildings	Q1 2022
Execute plan to optimise/reduce the infrastructure that is burning carbon to some degree	Q2 2022
Invest in infrastructure to improve the thermal envelope where relevant	Q3/4 2022
Develop costed estates plan that will reduce CO2 emissions across SWL	Q3/4 2022
Coordinate the exploration of non-carbon burning generation (eg solar panels) and possible funding sources	2022

6. Medicines – maintaining/reducing desflurane usage – Louise Coughlan



Objective

Maintain desflurane usage at current levels or lower

Commentary

SWL Trusts are already achieving the national target for desflurane (namely a maximum of 10% of volatile anaesthetic gas to be desflurane in surgery by volume), with the Royal Marsden using none.

Therefore, an ongoing programme of monitoring and identifying any changes to usage will be coordinated.

SWL Actions	Timeframe
Circulate desflurane usage by volume to relevant stakeholders each month	2022
Escalate any change in usage to relevant stakeholders	2022
Determine feasibility of reducing desflurane usage even further	Q1 2022

6. Medicines – Reducing MDI inhalers – Kieron Earney



Objective

Support patient choice of less carbon-intensive inhalers where clinically appropriate

Commentary

Dry powder inhalers, where clinically appropriate, are far less harmful to the planet than metered-dose inhalers. Through initial work conducted in 2021, the clinical case for DPIs is being established through the appropriate networks in SWL.

We have focused on inhalers since a) this will have a material impact on the system’s carbon dioxide equivalent emissions, and b) this has the greatest opportunity to engage multiple stakeholders within the system (e.g. primary care, Local Councils and Public Health) given certain root causes of asthma (e.g. air quality) and the need to make it easy to recycle existing MDIs.

SWL Actions	Timeframe
Determine correct recycling process for plastic elements of MDIs, and a supplier to undertake the activity in SWL	Q1 2022
Create communications and engagement plan across primary and secondary care to enable behaviour change in prescribing and enabling recycling	Q1 2022
Integrate governance of this work into the SWL Respiratory Clinical Network	Q1 2022
Determine opportunity to create behaviour change in secondary care via use of pop-up in the electronic prescribing system	Q1 2022
Determine costs to deliver infrastructure to enable recycling and correct disposal of each component of MDI	Q1 2022

6. Medicines – Reducing Nitrous Oxide waste – Emma Evans

Objective

Reduce nitrous oxide waste across ICS

Commentary

Reducing nitrous oxide requires multiple stakeholders across different functions contributing at different stages of the project that ultimately, should see a rationalisation of manifold and pipeline supplies as the true demand is measured, and correct mechanisms for supplying that demand are established.

However, the fact that there are multiple stakeholders makes delivery a challenge, since full accountability is not owned by one person or function.

The work has been done in other Trusts, but it is often time consuming, manual and requires coordination. This makes it appropriate to sponsor at an ICS level.

SWL Actions	Timeframe
Create working group of stakeholders across Trusts and functions	Q1 2022
Perform manifold audit across sites/Trusts	Q1 2022
Determine Entonox and nitrous oxide purchase per year	Q1 2022
Determine clinical use of nitrous and Entonox and compare two sets of results	Q2 2022
Determine right course of action by Trust and site wrt manifold decommissioning (replaced with cylinders attached to machines), repair and maintain manifolds and pipeline, or simply reduce manifold inputs	Q2 2022
Develop communications plan for work and ongoing management	Q3 2022
Develop toolkit for Trusts to improve efficiency of this process	Q3 2022

7. Supply Chain and Procurement – David Main



Objective

Support Trusts with existing and planned supplier activity to help to embed sustainability principles

Commentary

We will ensure that we maintain a network within London and across the country to ensure that we take other good ideas from other Trusts and implement them within SWL.

We will introduce certain sustainable principles into supply chain contract frameworks so that there is a consistency of approach across Providers in this regard.

We currently have a list of ideas over and above those covered in other sections that could be progressed in 2022, subject to further assessment:

- Food provenance (and storage, including chillers)
- Energy (including solar, wind and CHP replacement)
- Cleaning materials and chemicals
- Packs project

SWL Actions	Timeframe
Establish priorities for Supply Chain outside of existing sustainability areas of focus that warrant Supply Chain focus	Q1 2022
Coordinate a supplier audit to understand the status of supplier sustainability operations	Q1 2022
Determine any cost requirements associated with supply chain work	Q2 2022
Execute supply chain plan	Q3/4 2022

8. Nutrition - tbd

Objective

Integrate with existing food and nutrition activities to ensure appropriate influence in creating sustainable answers

Commentary

As with many aspects of this Green Plan, activities around sustainable nutrition are covered through action plans governed elsewhere – in this instance, as a result of the Independent Review of NHS Hospital Food.

One key area of focus is on monitoring and improving the level of food waste.

We will be looking to ensure that we work with organisations like the Soil Association, who have practical recommendations around local sourcing through their Food for Life work

SWL Actions	Timeframe
Establish an accountable person for determining how we develop sustainable food plans by Trust and across SWL	Q1 2022
Conduct audit of food miles across SWL	Q2 2022
Influence and develop sustainable targets for any food strategy or plan	Q3 2022
Determine if there are any farms or opportunities to source locally-grown food	Q3 2022

9. Adaptation – accountability at Provider level

Objective

Ensure that infrastructure and process can cope with extreme conditions happening more frequently, and for longer, than in the past

Commentary

With an increasing level of flooding, heatwaves and air pollution in London, each Provider needs to accommodate the requirements to address these increased risks (e.g. extreme heat and cold protection for our estates)

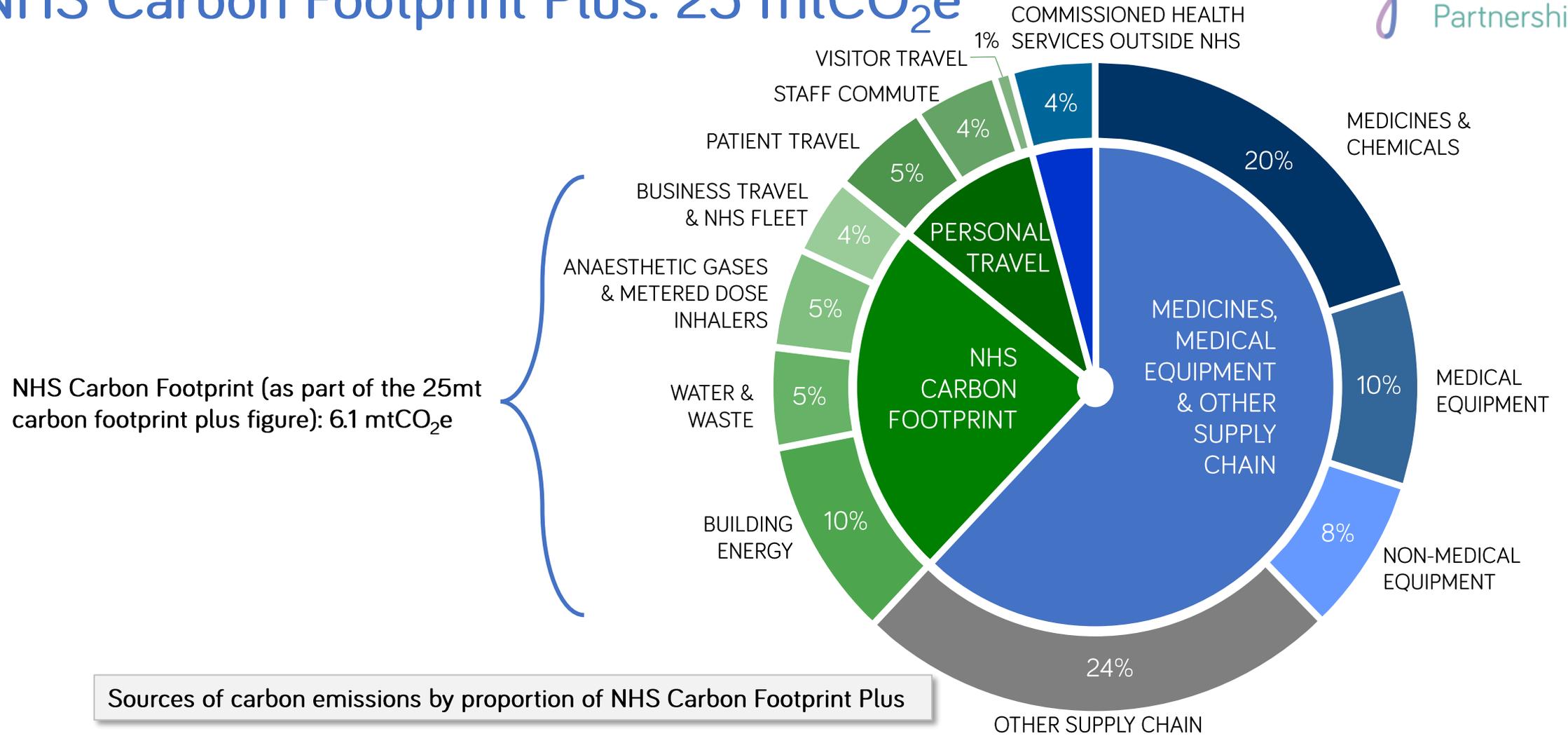
This will include a commitment to training of staff on any adaptive ways of working.

We will ensure that the region's risk register has accommodated the threats from these increased environmental risks and that we have tailored these threats for our specific vulnerable communities, but we have determined to delegate the need to create plans and test them at the Trust level, rather than coordinate them centrally.

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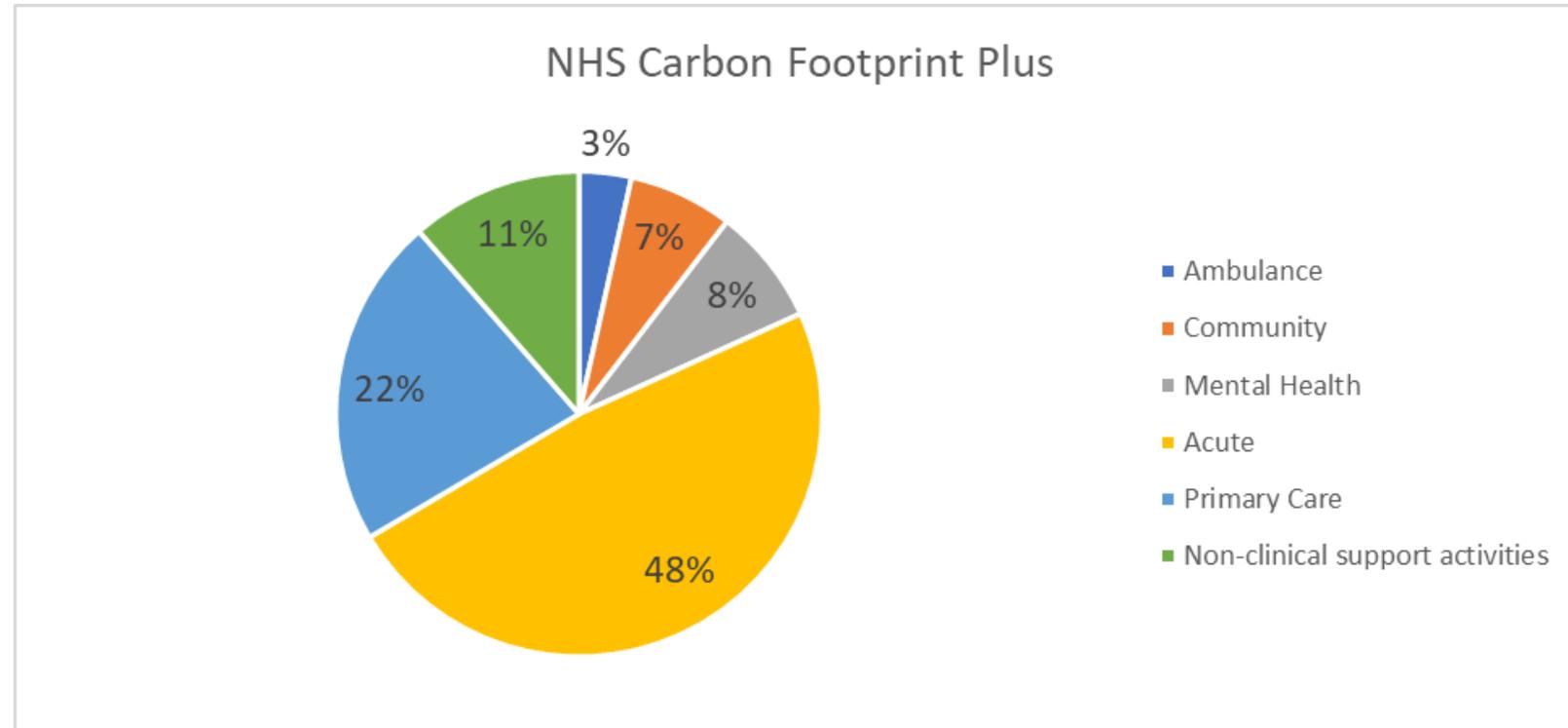
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NHS Carbon Footprint Plus: 25 mtCO₂e



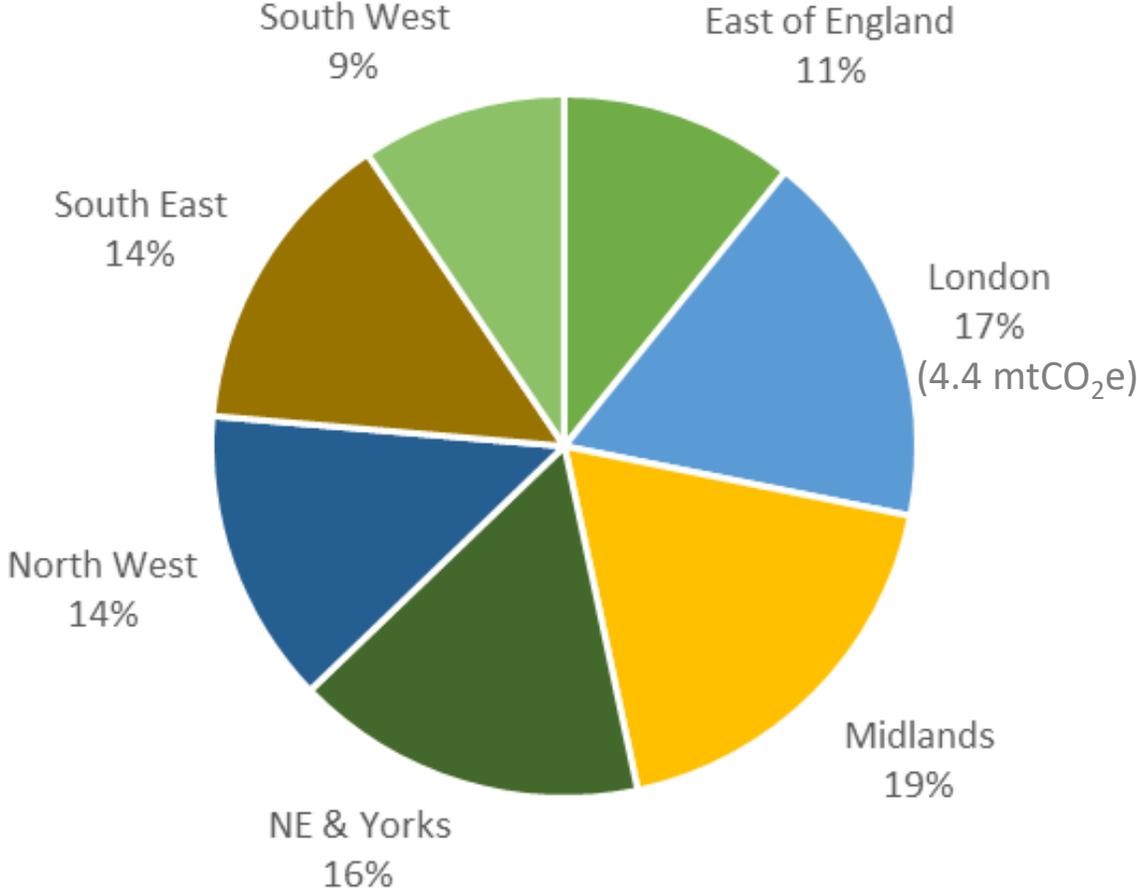
The national estimates of emissions - 2019

- At a national level, activity in the acute sector makes up almost half of all emissions – as per previous chart, procurement and building energy are the two most material activities
- While a number of activities to achieve emissions targets have been calculated, there are two material unknown opportunities:
 - How to align suppliers to the net zero plus commitments
 - Level of innovation required to reduce any offsetting requirements



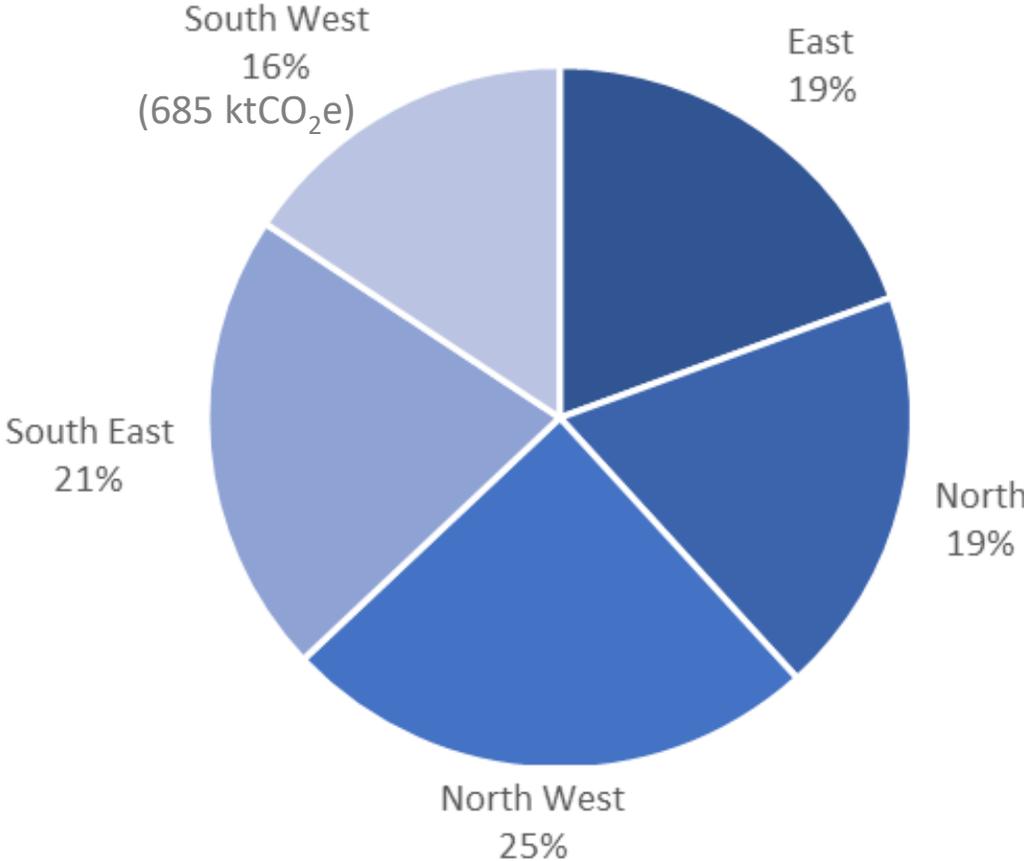
NHS Carbon Footprint Plus: 25 mtCO₂e

NHS Carbon Footprint Plus by Region



London Carbon Footprint Plus: 4.4 mtCO₂e

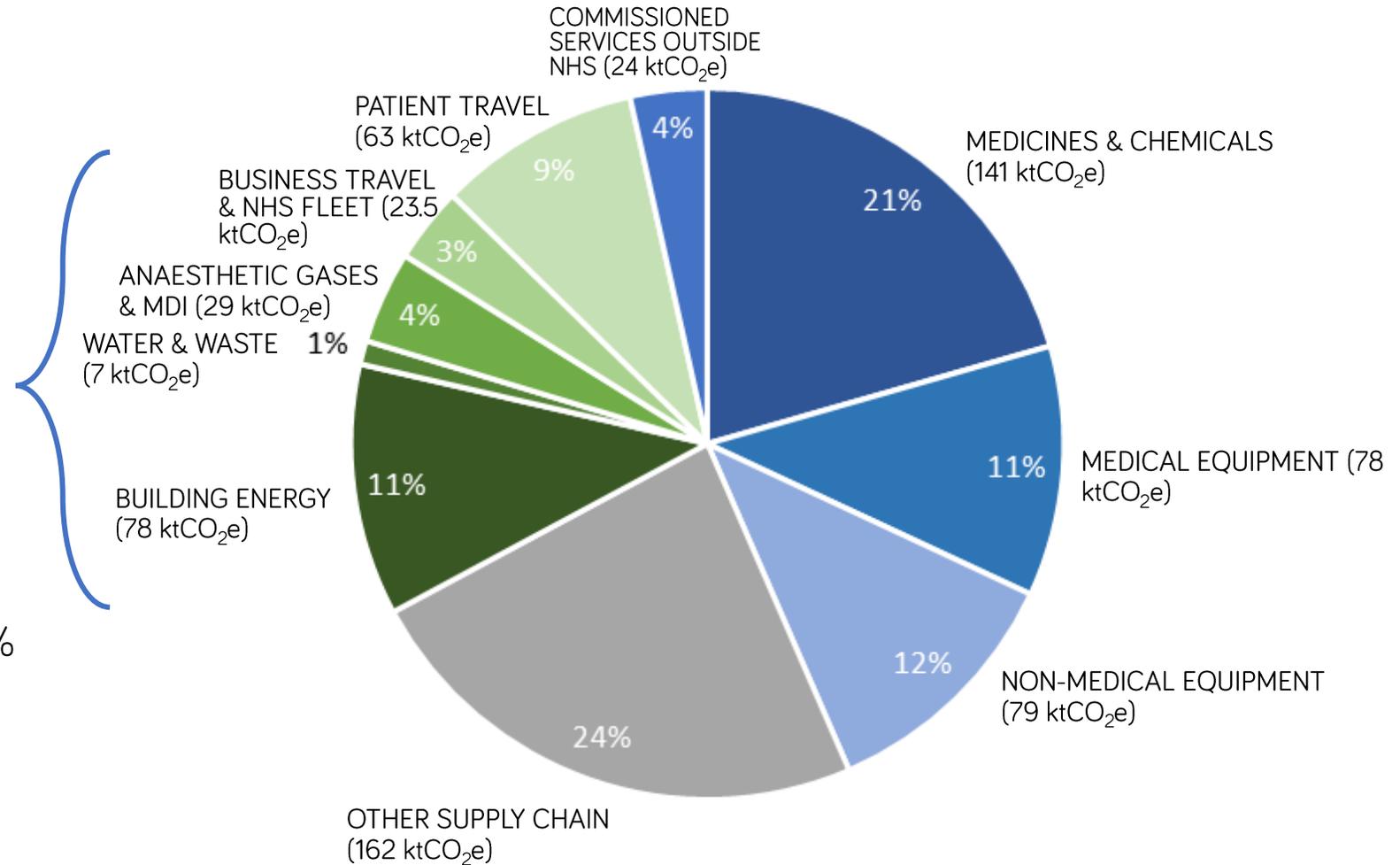
London Carbon Footprint Plus



SW London Carbon Footprint Plus (685 ktCO₂e)

SWL Carbon Footprint (138 ktCO₂e)

- London carbon footprint is c. 1 mtCO₂e
- Need to reduce by c. 47% from current levels by 2028-2032
 - 73 ktCO₂e for SWL



SW London Baseline core footprint data estimates

2019/20 CO2e Emissions (kilo-tonnes) ¹	Building Energy	Water & Waste	Anaesthetic gases & metered inhalers	Business Travel & NHS Fleet	Total
CLCH ²	4.5 (1.0e)	0.4 (0.1e)	0.2 (0.1e)	0.5 (0.1e)	5.7 (1.3e)
Croydon	10.7	0.2	1.9	1.6	14.4
Epsom	10.0e	1.0e	2.5e	9.0e	22.5e
HRCH	3.0e	0.4e	0.2e	0.5e	4.1e
Kingston	10.5	1.5	9.8	0.4e	22.2e
Royal Marsden	8.2	0.1	1.4	0.2	9.9
St. George's	29.4	2.4e	12.1e	10.4e	54.3e
St George's Mental Health	5.2e	1.3e	1.0e	1.3e	8.8e
Total ³	78	7	29	23.5	138

- 1 Where values have not been included as part of a Board-approved Green Plan, estimates have been made to enable a rough calculation according to the centrally published figures for SWL
- 2 CLCH numbers are for total organisation, as per Net Zero Pathway Addendum, with estimates for SWL in brackets,
- 3 Totals reconcile with central NHS figures for SWL

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Developing the support to deliver our Green Plan



- At an ICS level, we recognise that this Green Plan will require financial and human resources to deliver in full
- We are committed to providing central project management resource to ensure that we can maintain and monitor progress, tap into wider networks as required, and ensure that as far as possible, plans adhere to identified timelines
- Given that we may need to prioritise monies and may not be able to afford to fund all the plans:
 - Each working group has been tasked with costing 2022 funding requirements by the end of May 2022 so that we can allocate monies appropriately, and also support innovative funding sources if that is feasible
 - We are also coordinating what investments may be worthwhile across workstreams e.g. nudge behaviour training for practitioners as we look to write projects that will impact individual behaviours across staff and patients
 - We will work with Finance Directors to work through how we can create “ready-to-go” bids for funding in advance of new capital being made available through the year
- We are part of the London Sustainability Network, and we will look to build networks with e.g. local Public Health organisations & local boroughs in order to make sustainable change across the region
- We will also use the resources that are being provided centrally e.g. [Future NHS Collaboration Platform](#)

Estimating SWL investment required for 2022

All the below figures are high-level estimates to provide a sense of the investment required. Each Working Group will validate costs to confirm exact monies required – these monies are IN ADDITION to provider-specific investments agreed independently.

Priority	Nature of investment	£ estimate for 22/23
Set pledges and maintain engagement	Communications resource & materials	£50k
Reduce printing	Procurement and supply chain resource – integrated with digital/wifi investment – should realise cost savings	£0k
Maintain desflurane usage	Internal resource to maintain comms	£0k
Reduce Nitrous leakage	Scavenging equipment (c. £30k, £5k for analysis resource, 5 hospitals)	£135k
Reduce M-D Inhalers	Recycling bins in all community pharmacies and GP surgeries (£30k); upweight recycling and medicine disposal services (£100k); comms materials and engagement sessions (£15k)	£145k
Electrify patient and courier transport	Feasibility study for supporting electric patient transport in SWL (£150k) in 2022; build (£50k per charging point); tender for electric courier services (SWL Pathology initially – c. £5k extra per vehicle) – to be funded over 4 years	£150k
Reduce carbon emissions from buildings	Reduce number of buildings (in line with property strategy); investment in feasibility study to understand current situation across all providers (£100k); monitoring systems and improve infrastructure (per provider); invest in R&D to determine innovation opportunities & technology (£150k)	£250k

This will initiate our focus on delivering accelerating change over 4 years



	2022/23	2023/24	2024/25	2025/26
Buildings	Invest in ensuring existing buildings have the right thermal envelope, scope out new buildings strategy, and explore alternative commercially viable sources of heat to CHP boilers – net CO2e target of 75kg (from 78 in 2021)	Start to reduce number of buildings needed, trial alternatives to CHP boilers – net CO2e target of 70kg	Continue with buildings strategy and alternative heat sources as CHP leases come to end of life and alternatives become available, thereby using 63kg CO2e	Continue with buildings strategy and alternative heat sources as CHP leases come to end of life and alternatives become available, thereby using 55kg CO2e
Water & Waste	Invest in monitoring equipment for water usage and improve recycling processes, maintaining emissions at 7kg CO2e	Continue to improve water usage and integrate recycling improvements with local authorities, creating 6kg CO2e	Continue to improve water usage and integrate recycling improvements with local authorities, creating 5kg CO2e	Continue to improve water usage and integrate recycling improvements with local authorities, creating 4kg CO2e
Medicines	Initiate MDI education and recycling programme in primary and community environment, and implementing nitrous leak reduction, creating reduction in emissions from 29kg to 28kg	Use 25kg CO2e by expanding MDI programme, reducing desflurane usage further, and exploring other opportunities to reduce carbon footprint	Use 20kg CO2e by maintaining MDI programme, reducing desflurane usage further, and trialling other medicine changes	Use 15kg CO2e by maintaining MDI programme, and implementing other low-carbon medicine alternatives
Transport	Conduct feasibility study for creating electrified patient and courier services across SWL, while supporting alternative transport choices for staff, so reducing CO2e from 23.5kg to 22kg	Use 19kg by investing in infrastructure required to deliver patient and courier services, and procure electric courier services	Use 15kg by delivering full year electric patient/courier services, and working with local authorities on improved local transport alternatives for staff & visitors	Use 13kg by delivering full year electric patient/courier services, and working with local authorities on improved local transport alternatives for staff & visitors
Supply Chain (Carbon Footprint Plus)	Create focus on all 3 rd party tenders on sustainability and review opportunities across supply chain	Focus on priority areas of procurement and supply chain with right suppliers	Focus on priority areas of procurement and supply chain with right suppliers	Focus on priority areas of procurement and supply chain with right suppliers

We have identified five key risks to delivering this Green Plan

Risk

1. *Resource* – SWL and Providers do not invest in right level of resource required to enable focus on delivering sustainability targets
2. *Investment* – unit costs of sustainable products and services are higher than alternatives, and will therefore need to become a priority investment in order to deliver
3. *Focus* – there are competing and often-changing demands on individuals in the system (e.g. dealing with pandemic), and sustainability plans need multi-year dedicated focus
4. *CHP Boilers* – SWL providers are reliant on existing medium- and long-term leases for CHP boilers, which limits the opportunity to reduce carbon emissions from buildings in the region
5. *Engagement* – reducing carbon emissions requires a number of stakeholders (individuals and organisations) to contribute, which means making meaningful change happen becomes difficult



Mitigation

Individuals with dedicated sustainability responsibility are either in place, or are being recruited for, at provider and ICS level

We have estimated how much priority funding is required to start this plan, and management teams need to determine priorities for the

Sustainability governance groups within SWL will ensure agreed priorities continue to be supported through the year

Targets set accordingly, and focus on viable alternative energy sources to be set for the next 12 months

This plan prioritises activities we believe can make material difference, while engaging Local Authorities, Public Health, staff, commercial suppliers and cross-functional elements within NHS in the right way.

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Next Steps

- We will ensure that we action those activities that are identified in this plan that are within current financial envelopes
- We will establish the right governance processes to ensure progress is made against the plan
- We will cost out requirements to fully fund this Green Plan
- We will monitor progress monthly via the Delivery Group, quarterly via the Change Group of accountable officers, and via the ICS management team and Board structure
- We will look to launch this Green Plan through collecting & communicating out leadership pledges around sustainability, and then engage all staff with the Plan
- Current plan is that the first initiative that the ICS will focus on across SWL is the MDI communication and recycling programme

Launching the Green Plan in SWL – draft outline

