Sustainable retrofitting of homes in RBKC
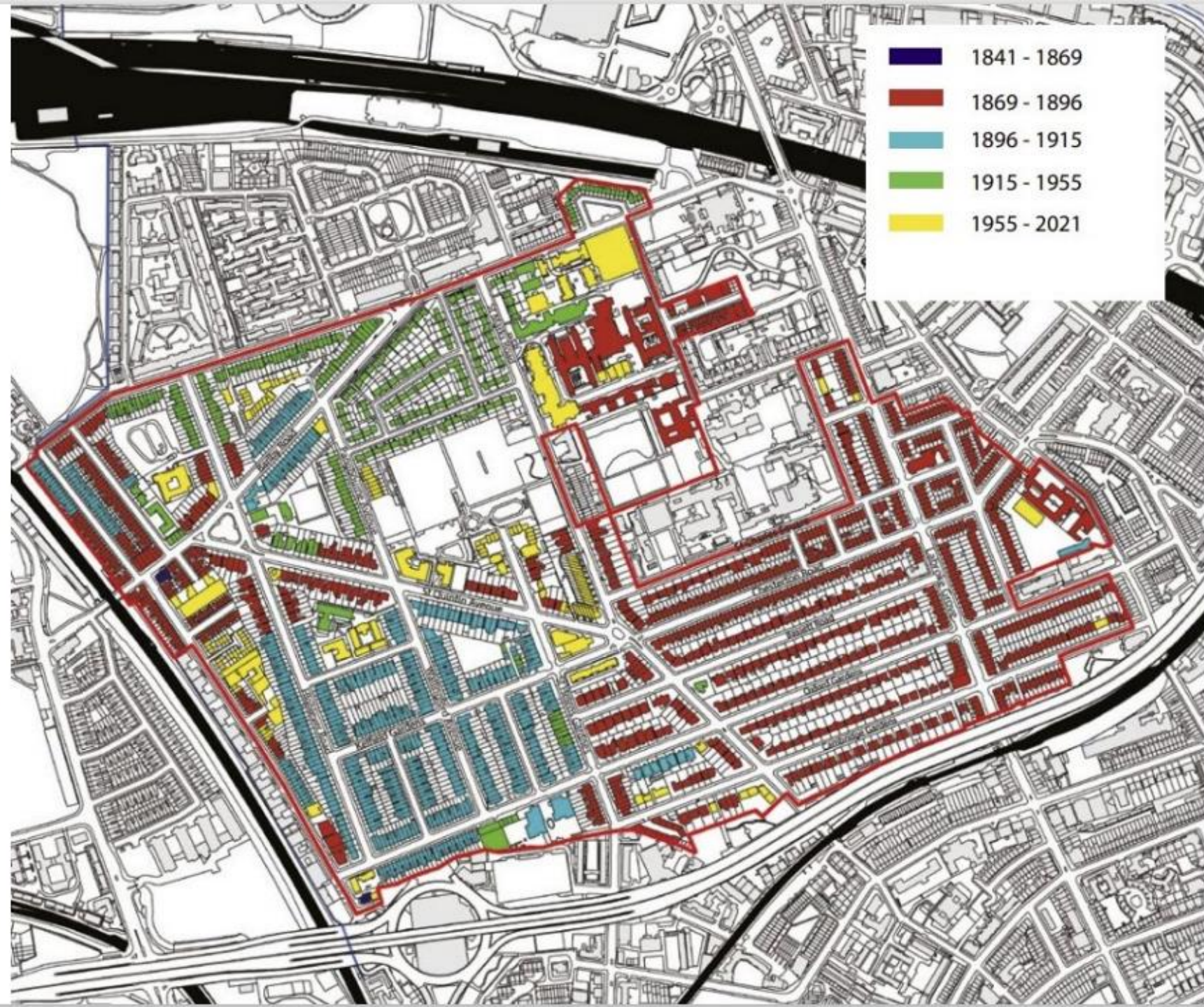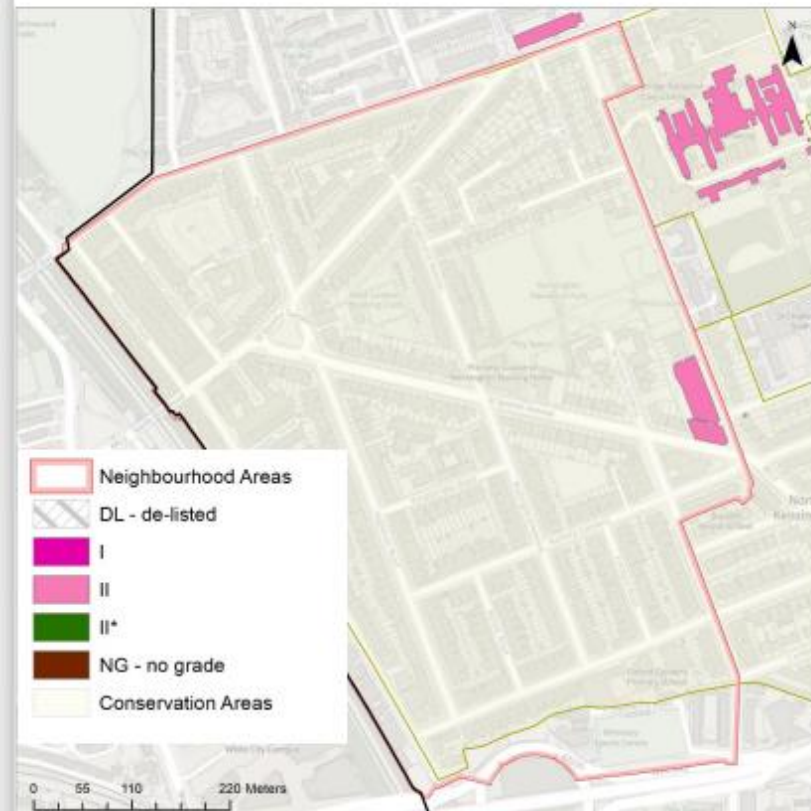
14 September 2023

Preeti Gulati Tyagi, Planning Policy Team Leader

THE ROYAL BOROUGH OF
KENSINGTON
AND CHELSEA

Local context

- Most of the area is within Oxford Gardens Conservation Area

- Grade II Listed Buildings: 105-123 St Mark's Rd and 1-3 Cowper Terrace (consecutive)

Legend (right map):
- 1841 - 1869
- 1869 - 1896
- 1896 - 1915
- 1915 - 1955
- 1955 - 2021

Legend (left map):
- Neighbourhood Areas
- DL - de-listed
- I
- II
- II*
- NG - no grade
- Conservation Areas

0 55 110 220 Meters

Local context

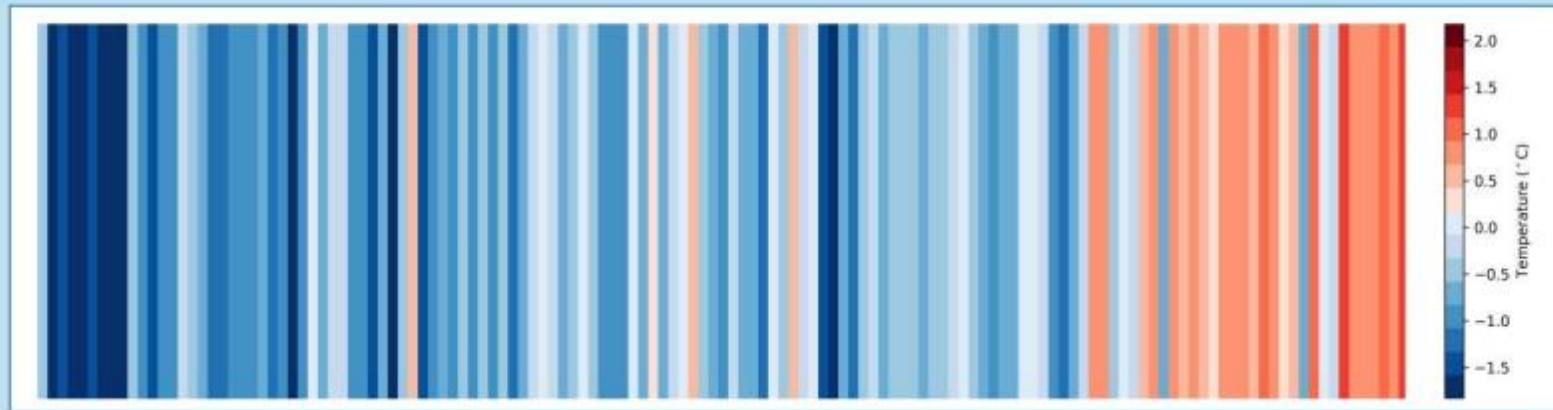Terraced Houses

Cottage style maisonettes

Semi detached

Bracewell Road

Barlby Road

St Quintin Avenue

How has London's climate changed?

Temperature Difference (°C)
Data: HadUK-Grid
Concept: Ed Hawkins

The stripes show how temperatures in London have increased, with many of the hottest years occurring in the last few decades.

There is an increased chance of **warmer, wetter winters and hotter, drier summers.**

Although the trend is for drier summers in the future, there may be increases in the intensity of heavy summer rainfall events.

Hot summers are expected to become more common. By 2050, every other summer may be as hot as the record breaking summer of 2018.

Sea level will continue to rise in the 21st century even if greenhouse gas emissions are reduced rapidly.

SPF City Pack Editable Template, Met Office – ukclimate resilience.org

Where do our emissions come from?

BOROUGH-WIDE GREENHOUSE GAS EMISSIONS BASELINE 2018

1% are Council emissions

896 ktCO2e in total

Commercial & Industrial Buildings

50%

445 ktCO2e

of borough-wide greenhouse gas emissions is from energy consumption in commercial & industrial buildings.

Residential Buildings

30%

276 ktCO2e

of borough-wide greenhouse gas emissions is from energy consumption in residential buildings.

Transport

17%

147 ktCO2e

of borough-wide greenhouse gas emissions is related to transport (cars, motorcycles, buses and rail).
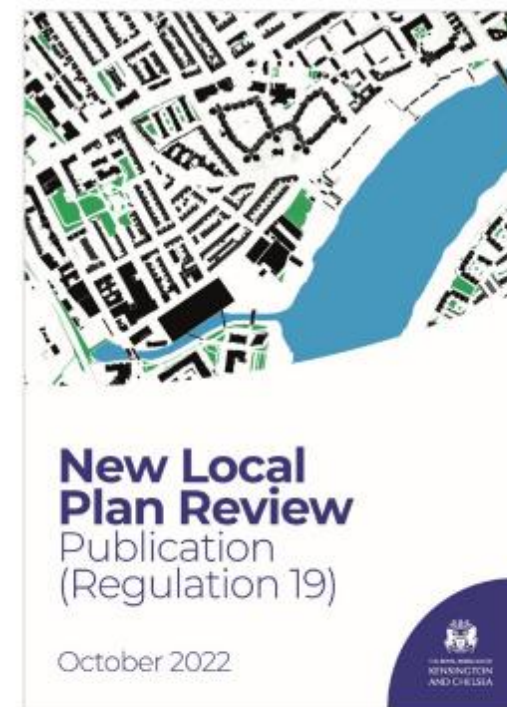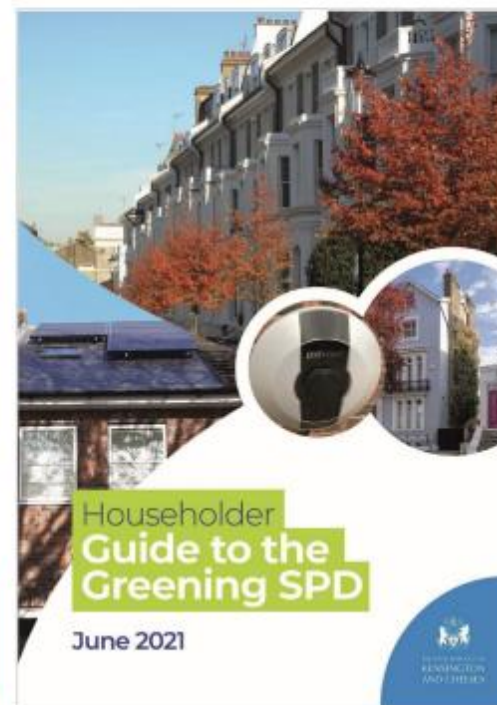
Waste

3%

28 ktCO2e

of borough-wide greenhouse gas emissions are from waste generation and disposal.

1,984 ktCO2e

If consumption emissions were included they would have been 69% of the total borough-wide emissions.

Policy context

Greener   Safer   Fairer

Council Plan
2023-2027
Becoming the Best Council for
a Borough that is Greener, Safer, Fairer.

Greening
Supplementary
Planning
Document
June 2021

Householder
Guide to the
Greening SPD
June 2021

New Local
Plan Review
Publication
(Regulation 19)

October 2022

https://www.rbkc.gov.uk/planning-and-building-control/planning-policy/greening-spd

NLPR Green Blue Chapter

Covers topics such as:

- **Sustainable retrofitting**
- Energy and Net-Zero Carbon
- Overheating
- Air quality, Noise and Vibration, Odour, Light Pollution
- Green Infrastructure, Biodiversity
- Sustainable Drainage and Flood Risk

Draft Policy GB1: Sustainable Retrofitting

GB1: Sustainable Retrofitting

A. Sensitive, sustainable and safe retrofitting of all our existing building stock is supported. For large retrofit schemes, third party voluntary standards such as EnerPHit for retrofit projects, the AECB Silver Standard and Energiesprong for whole house retrofit of existing homes should be used.

B. Retrofitting of historic and listed buildings as well as properties within conservation areas must be carried out so that it does not harm the special historic or architectural interest of the building or character and appearance of the conservation area.

C. Sensitive installation of double-glazed window replacements is supported subject to fulfilling the Council's statutory duties in relation to conservation areas and listed buildings.

D. Sensitive installation of solar panels in an appropriate position to maximise solar gain is supported subject to fulfilling the Council's statutory duties in relation to conservation areas and listed buildings.

Heat loss map

Proportion of heat loss in the home:

- 3% Ventilation
- 19% Draughts
- 25% External walls
- 2% Thermal bridges
- 3% Floors
- 42% Windows
- 5% Roofs

Heat loss in your home | Royal Borough of Kensington and Chelsea (rbkc.gov.uk)

A whole house retrofit plan

A comprehensive plan for home improvements to ensure that a house is as energy-efficient as possible. A whole house retrofit ensures that improvements are carried out in an organised, sensible order, with installations and refits complementing each other rather than working against each other.

Typical simple retrofit plan		Cost considerations
Step 1	Insulate loft	Grants may be available
Step 2	Repair/ replace windows if needed and improve ventilation	High cost step so may not be afforded at the same time as step 3
Step 3	Swap boiler for heat pump	High cost step so may not be afforded at the same time as step 2
Step 4	Install solar PV/solar thermal on the roof	Smart meters should be installed at the same time to get the best tarrifs