Councillor Briefing: Environmental Data for Cowplain

"As a councillor for Cowplain, you will know the area well, but we've brought together some environmental data that you may not be aware of. We hope you can use this information to improve the lives of residents in your ward."

Mike Childs, Friends of the Earth

60%
of homes are poorly insulated

15.6%
Summer tree canopy cover (Recommended minimum = 20%)

6.9µg/m³
Annual background concentration of $PM_{2.5}$ (WHO limit = 5µg/m³)

Climate Change and Energy

Burning fossil fuels has already led to the planet warming by almost 1.5 degrees Celsius. This is disrupting weather systems and causing more severe storms, droughts and floods.

Our continued high use of gas to produce electricity and to heat our homes and businesses is contributing to this, as well as leaving us all exposed to volatile energy prices. Friends of the Earth is calling for councils to support a faster roll-out of renewable energy and to help householders fit insulation. We are also calling on the government to introduce a social tariff for energy — that is, cheaper energy rates for those on the lowest incomes.

More oil and gas drilling won't reduce energy costs, because costs are set on the global market, but it will exacerbate climate change (for more detail see our **Misinformation briefings**).

In Cowplain, 335 homes are already at high risk of flooding, according to Environment Agency data. In the future this could increase to 515. Climate change will also lead to more heatwaves. In the 2022 heatwaves, the temperature reached 33.2°C in Cowplain. The government needs to do more to prepare the country for extreme weather events, including with more support for local authorities, so that those most at risk – such as older people during heatwaves or disabled people during flood events – can be properly protected.

Homes need not only to be better adapted for flooding and heatwaves but also better insulated to help keep down energy costs and reduce the number of people living in cold, damp homes.

In Cowplain, there are 2,610 homes that are poorly insulated (below the EPC C level), making it 1 out of 12 in Havant for the number of homes needing an upgrade. Better insulated homes not only cut energy bills but also reduce illness and make homes more comfortable.

Nature and Pollution

Air pollution has fallen over recent years, partly as a result of cleaner vehicles, such as electric buses, vans and cars, replacing petrol and diesel vehicles. But air pollution remains high across much of the country. Air pollution is particularly a concern for young people, as their lungs are developing, as well as for those with respiratory problems such as asthma or COPD. Up to 30,000 people die prematurely due to air pollution in the UK each year.

Cowplain ranks 8 out of 12 in Havant for pollution levels. The level of air pollution, based on government modelling, reaches 10.6 $\mu g/m^3$ for nitrogen dioxide in parts of the ward, compared to the World Health Organisation (WHO) recommended level of 10 $\mu g/m^3$, and 6.9 $\mu g/m^3$ for particulates, compared to the WHO level of 5 $\mu g/m^3$.

Nature can help reduce air pollution, provide cooling during heatwaves and reduce flooding. Research also shows local green spaces are linked with better mental health. Tree cover in Cowplain is 15.6%, against a recommended minimum of 20%. The proportion of people who are within a 15-minute walk of greenspace is 90% – the **government target** is that everybody should be within a 15-minute walk of greenspace.

Who is Harmed Most by Environmental Damage

While almost everyone is harmed by a degraded environment, including future generations, Friends of the Earth research has identified that people on low incomes, disabled people, and people of colour are disproportionately harmed by air pollution, climate extremes and a lack of access to nature. These people also tend to contribute least to these problems, making this an environmental injustice.

Improving the environment benefits both people and nature. Research shows it is also beneficial for jobs and the economy, with the Climate Change Committee stating that every pound spent brings benefits worth 2.2–4.1 times as much. Those calling for green policies to be delayed or abandoned are not serving the public good.

What Councillors Can Do

The information is this briefing will help you stand-up and speak out for action on climate, nature and equality because of the benefits that action will deliver for your constituents.

Speaking out for action on climate change, energy, nature and pollution is important at a time when powerful vested interests, some politicians and the media are seeking to delay or abandon action. Data in the other Ward reports in your area will also enable you to highlight how councillors speaking out against climate action are not serving their constituents well.

Please e-mail **data@foe.co.uk** to provide feedback on this environmental data sheet.

Further Reading

- Friends of the Earth's Local Environmental Data tool, which includes local authority-level data and policy recommendations for councils: **https://groups.friendsoftheearth.uk/near-you**
- Friends of the Earth's misinformation briefings, including on energy bills, costs and jobs: **https://friendsoftheearth.uk/climate/climate-change-lies-vs-facts**
- Friends of the Earth's policy website, with articles spanning all the issues listed here and more: **https://policy.friendsoftheearth.uk/**

Methodology

Current and future flood risk

Published data on **properties at risk of flooding from rivers and seas** was used alongside **risk of flooding from surface water extent maps** and property location coordinates, to identify all properties at risk of flooding from either rivers or seas, or from surface water. The data were then aggregated at postcode level to calculate the proportion of properties at risk. This proportion was then used to estimate the population at risk (assuming population is distributed evenly across properties within a postcode) and to estimate the number of residential properties at risk from the ratio of households to total properties.

These metrics were aggregated to Ward level to obtain, for both high and medium risk categories, the number and proportion of all properties, residential properties, and estimated population at risk. Medium risk today was treated as a proxy for future high risk under a climate change scenario, so high-risk statistics were labelled "current high risk" and medium-risk statistics "future high risk".

For further information on the analysis and methodology see **here**.

Heat risk (summer 2022 maximum air temperature)

Daily maximum **air temperature data by 1km grids from HadUK (MetOffice)** for heatwave periods in summer 2022 were aggregated from their original grid resolution to Ward level using an area-weighted approach. For each Ward we calculated the 3-day average maximum air temperature during the heatwaves, providing a simple indicator of recent extreme heat exposure. For more detailed information see **here**.

Home energy performance (EPC bands)

Domestic Energy Performance Certificate (EPC) records were aggregated to Ward level using a postcode-to-Ward lookup. For each Ward we calculated the number and percentage of homes in EPC bands D to G, providing an indicator of the prevalence of inefficient housing that is more vulnerable to high energy costs and in need of further insulation and other energy efficiency measures.

Air pollution

Modelled background air pollution data for nitrogen dioxide (NO_2) and particulate matter ($PM_{2.5}$), published by **Defra at 1 km² resolution**, were aggregated to Ward level using area weighting. For each Ward we retained mean and maximum concentrations for NO_2 and $PM_{2.5}$ and compared these with the World Health Organization (WHO) 2021 air quality guidelines.

For details on this analysis and methodology see **here**.

Tree canopy cover

Total summer tree canopy cover was calculated from two datasets published by Forest Research: **National Forest Inventory (NFI)** and the **Trees Outside Woodland (TOW) map**. These were intersected with Ward boundaries to calculate the total woodland and tree canopy area (m^2) in each Ward, and the percentage of the Ward's land area covered by trees.

Greenspace

Defra's access-to-greenspace statistics, originally published at Output Area level, were reallocated to Wards using postcode-weighted OA–Ward lookup tables. For each Ward we estimated the number and percentage of households that meet the "within 15 minutes" walk of greenspace commitment.