

UKHSA/ADPH Climate Change and Health Webinar: Translating evidence into practice in Portsmouth

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Dominique Le Touze

Assistant Director of Public Health, Portsmouth

Meeting the needs of our population

OUR CITY

208,100

residents



57th most deprived local authority in England (out of 317).

EMPLOYMENT

Portsmouth's unemployment rate is **4.8%**

compared with 4.1% nationally.

6.9%

of residents have no skills compared with 5.6% average for South East and 8% nationally



EDUCATION

5.2%

of 16–19 year olds are not in education, employment or training.

Children meeting the expected reading standard:

Portsmouth is ranked

148/152

local authorities at end of primary school



147/152

local authorities at end of secondary school



LIFE EXPECTANCY



Men **78.5**

compared with 79.4 nationally.



Women **82.4**

compared with 83.1 nationally.



HEALTHY LIFE EXPECTANCY

15 YEARS SHORTER

14 YEARS SHORTER

in most deprived areas compared to least deprived.

NUMBER OF DEATHS

In Portsmouth in 2020 there were

254 deaths

in people under the age of 75 from causes considered to be preventable

LONG-TERM CONDITIONS

12%

of working age residents have limiting long-term illness or disability



In Charles Dickens ward, this rises to **18%**



CAUSES

The main causes of the life expectancy gap are:

 **Cardiovascular disease**

 **Cancer**

 **Respiratory disease**

Rates of these are all significantly higher in Portsmouth than in England.



They are caused by environmental factors and risky behaviours – like smoking, alcohol, poor diet and inactivity.

OBSESITY

2/3



adults are obese or overweight which leads to preventable heart disease and cancer.

28%

of children are classified as obese at the end of primary school.

MENTAL HEALTH

12.9%

of residents report having a long-term mental health problem compared to **11%** in England.

2,520

children and young people accessed at least one mental health service in the 12 months to May 2022 (an increase from 2,150 in July 2021)



ALCOHOL

1 in 5 people

(22%) are drinking to unhealthy levels, with up to 4,400 adults estimated to be alcohol dependent.



SMOKING

14% of Portsmouth adults are estimated to smoke, rising to **27%** of manual workers.

Smoking remains the biggest preventable cause of ill-health and early death.



THE HEALTH EFFECTS OF CLIMATE CHANGE

STATE OF EVIDENCE 2023

A comprehensive and authoritative summary of the scientific evidence on the health effects of climate change, potential implications of these risks for public health, and research gaps

A LARGE & GROWING EVIDENCE BASE

highlights diverse and substantial threats to health from climate change



MANY RISKS ARE PREVENTABLE

through adaptation at low levels of warming



EFFECTIVE INTERVENTION

Despite substantial evidence of risk, the evidence base on effective interventions is less developed and should be prioritised

HEATWAVES

Extreme heat will lead to a increase in the number of deaths and other health effects due to warming temperatures and an ageing population: up to 10K deaths per year due to extreme heat by the 2050s under a high-warming scenario without adaptation



Chikungunya virus Dengue virus West Nile virus

Infectious vector-borne diseases that could become transmissible in London and other parts of the UK with the establishment of the Asian tiger mosquito *Aedes albopictus* and spread of *Culex* mosquitoes



The greatest health impacts of flooding in the UK are on mental health: people who experience flooding are at higher risk of depression, anxiety, and post-traumatic stress disorder



FLOODING



Our dependence on food from highly climate-vulnerable countries is projected to increase, potentially impacting stable food supplies, particularly for fresh fruits and vegetables

FOOD SECURITY



WIN-WIN STRATEGIES

- Nature-based solutions, early action
- Reducing existing health inequalities
- Supporting behavioural transitions
- Supporting for vulnerable populations
- Embedding health in climate planning
- Embedding climate in public health practice

WIDER BENEFITS FOR HEALTH



Mitigation and adaptation actions can generate further health benefits, for example:

- Reduced air pollution
- Safer and healthier homes
- Shade protection from heat
- Greenspaces for mental health
- Healthy behavioural shifts
- Less pressure on health and care services

RESEARCH GAPS

Advance understanding of **intervention effectiveness** including economic assessment

Advance research into **mental health & behaviour**

Improve climate-health **modelling**



Increase emphasis on **equity and vulnerable populations & settings**

Develop & coordinate standardised **metrics & indicators**

Assess **co-benefits, cascading & compound risks**



- Helpful way to structure and frame Healthy Places and Health Protection agendas
- Series of pilot projects on each theme:
 - Flooding and drought
 - Excess heat and cold
 - Food security
 - Vector borne disease
- PLUS
 - Air pollution



Underlying principles:
Reducing inequalities, nature-based solutions, One Health

Portsmouth and climate change



Since the 1960s, Portsmouth has recorded:

- An average increase of 1°C to both winter and summer temperatures
- An average of seven fewer frosty days a year
- An increase of 7% on annual rainfall - additional 50 mm of rain

Locally, we've already experienced:

- Flooding from heavy rain
- Injuries from cold snaps and heatwaves
- Landslides
- Tornados
- Damaged buildings and roads
- Travel delays and cancelled events
- Disrupted public services such as refuse collection

Models predict that Portsmouth in the 2040s is likely to have:

- Average summer maximum temperatures could be over 2°C higher than now
- Summer rainfall could fall by 15%
- Average winter minimum temperatures could be over 1°C higher
- Winter rainfall could increase by 12%
- Sea level could be 21 cm higher

Flooding and drought

~13 km of sea defences being upgraded to protect over 12,000 homes and 1,200 businesses.

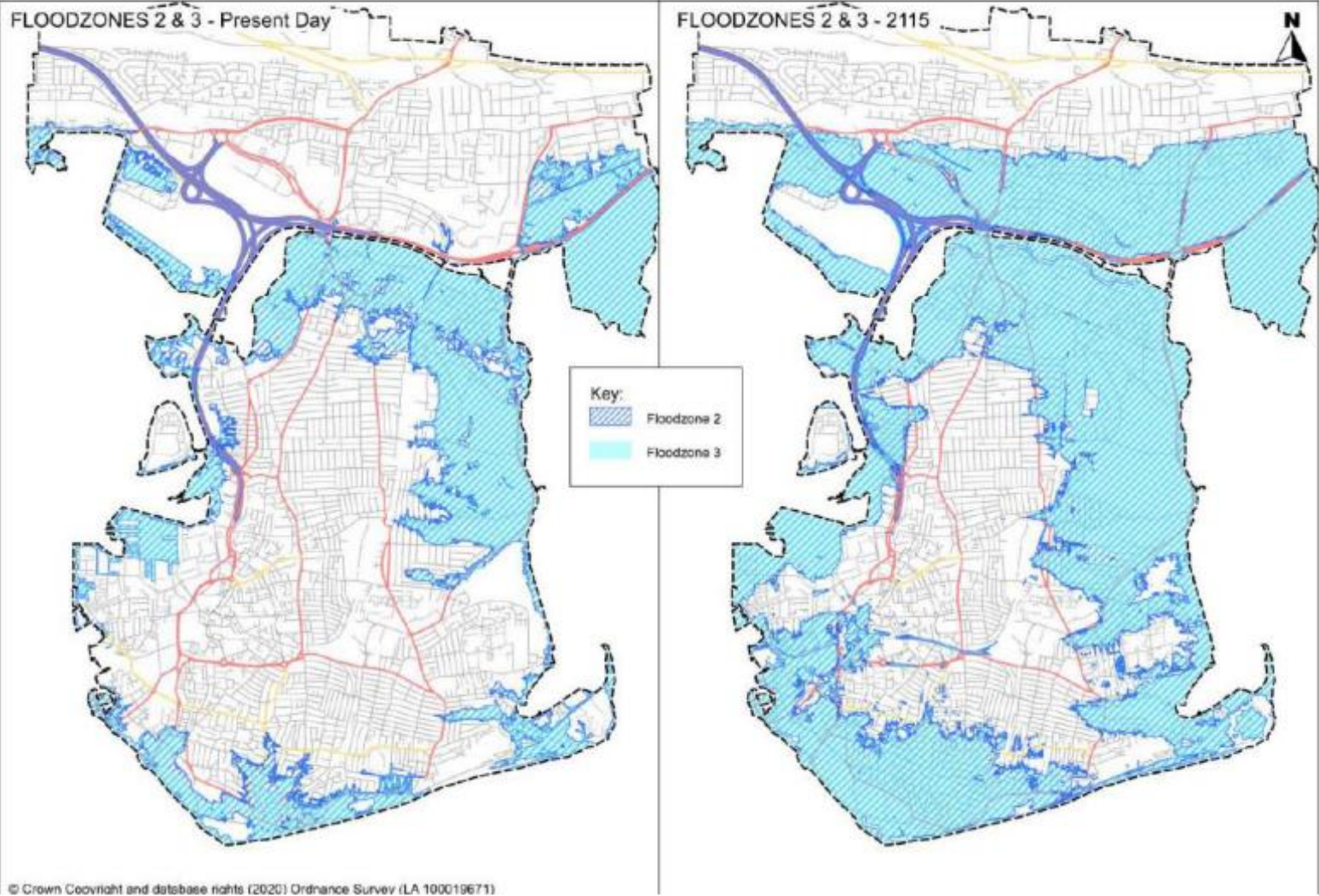


Figure 4 - Present day flood zones 2 and 3 and flood zones by 2115, due to climate related sea level rise. Note the 2115 flood risk projections are based on Strategic Flood Risk Assessment modelling which the Council is in the process of updating - they are likely to underrepresent/overrepresent risk in places and should be referred to with caution until they've been updated later in 2021/22 to reflect the current climate allowances.

Sustainable Urban Drainage Systems and depaving



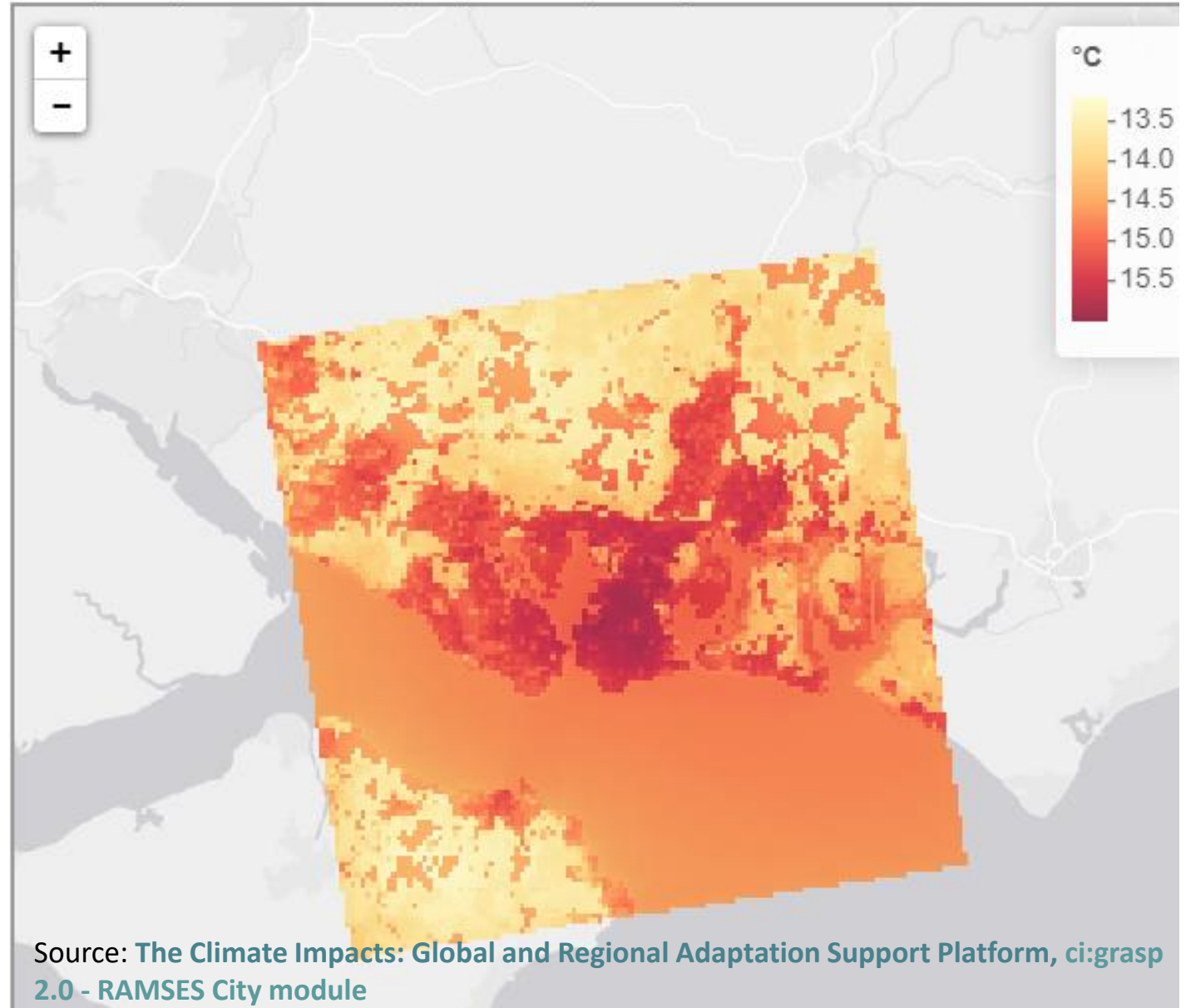
Excess heat and cold

The Royal Albert Day Centre offers activities for adults aged 65+ with a dementia diagnosis.

Delivery of shaded garden working with Landscape Architects and Centre Manager to reduce existing heat impacts.



Average temperature at midnight (local time) during the summer of 2011





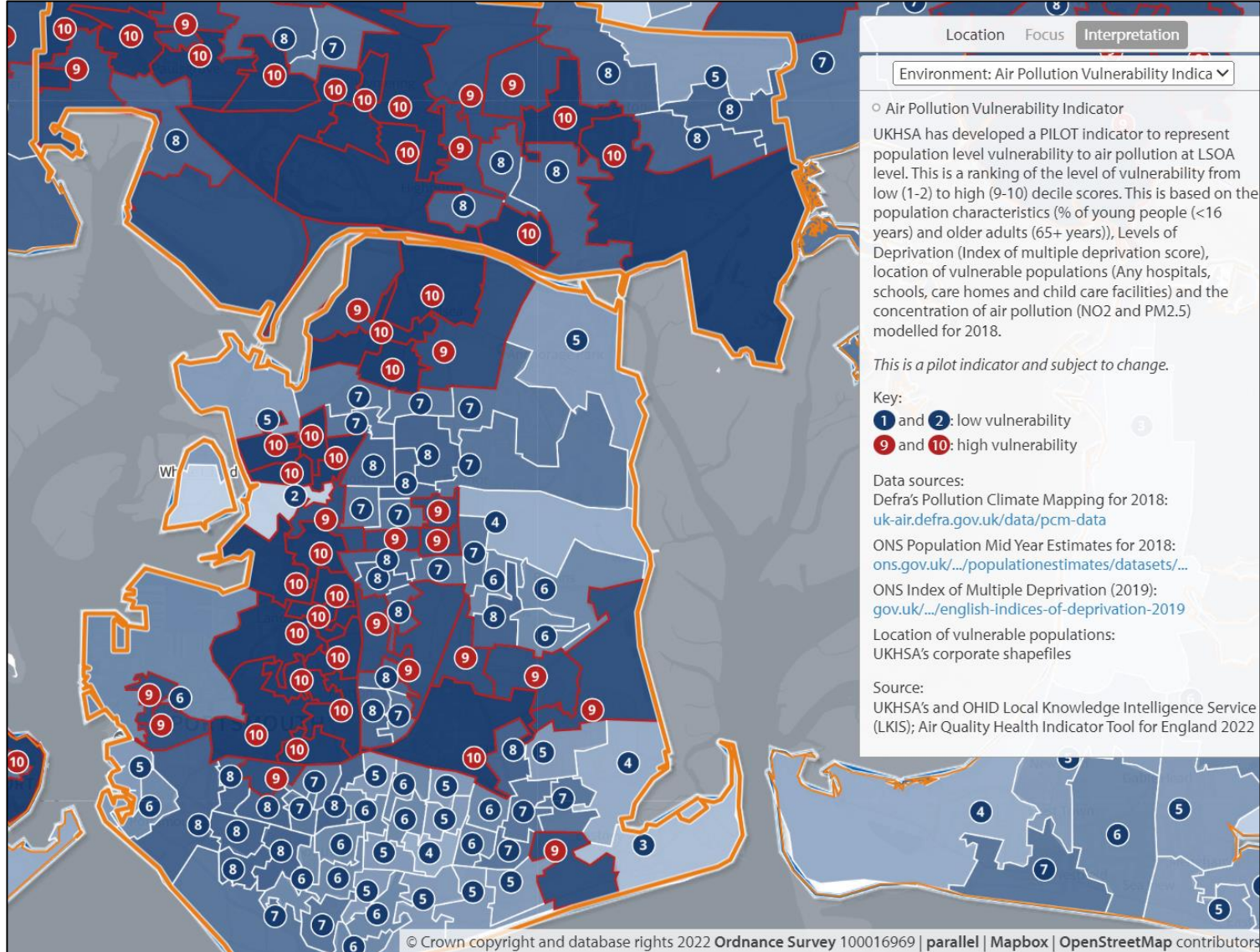
Food security: global to local

- Realist evaluation of free school meal uptake in children attending one primary school which is part of a Superzone initiative
- Realist evaluation – qualitative research which addresses: "what works, for whom, under what circumstances and how?"
- Key emerging factor – difficulties faced by families during the sign-up process.
- Sign-up process examined, exploring switching from an opt-in to an opt-out system with an aim to increase uptake in eligible families.

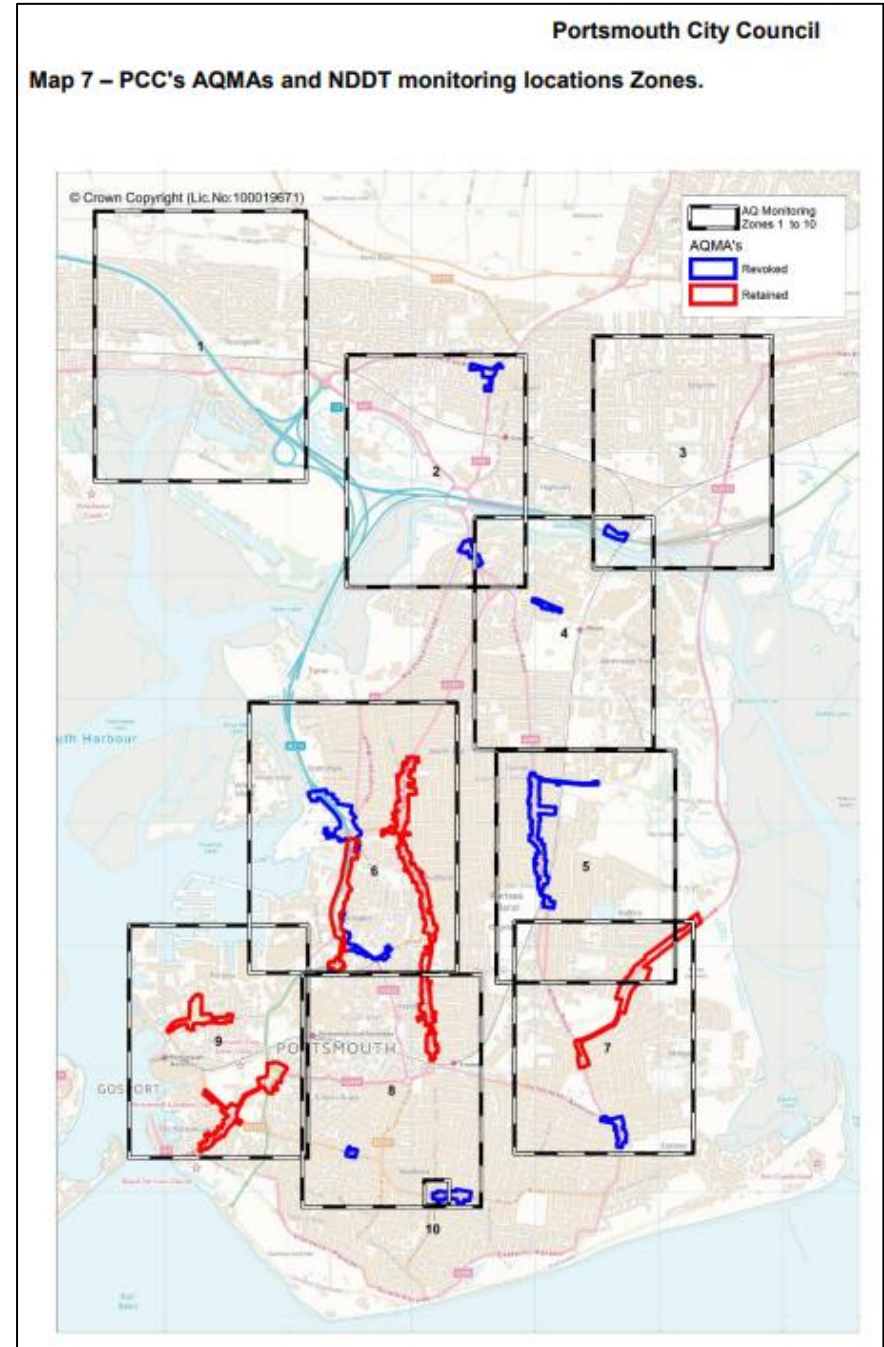
Vector borne disease



Air pollution



Source: UKHSA's and OHID Local Knowledge Intelligence Service (LKIS); Air Quality Health Indicator Tool for England 2022



Partnerships



Climate change and public health indicators: scoping review

Health and social service indicators

HS1 Hospitals overheating incidence - Proportion of hospital or care homes that experience overheating (exposure indicator)

NHS England collect
New overheating metrics being developed by NHS Property Services?

HS2 Health services flooded - number of emergency services stations, hospitals, GP surgeries, or care homes flooded in a given period (outcome)

NHS England Trusts required to report major incidents
But: number of flooding major incidents not recorded, or flood damage that does not cause major incident

HS3 Trust Green Plans that consider adaptation (Action)

HS4 Health care facilities adapted to be climate-proof (Action)

No clear current indicator – but work ongoing locally