Public Document Pack

Overview and Scrutiny Management Committee

Thursday, 15th October, 2020
at 5.30 pm

PLEASE NOTE TIME OF MEETING

Virtual Meeting

This meeting is open to the public

Members

Councillor S Galton (Chair)
Councillor Fuller (Vice-Chair)
Councillor Bell
Councillor Bunday
Councillor Cooper
Councillor Harwood
Councillor Renyard
Councillor Whitbread
Councillor Fitzhenry

Appointed Members

Nicola Brown, Primary Parent Governor
Catherine Hobbs, Roman Catholic Church
Francis Otieno, Primary Parent Governor
Claire Rogers, Secondary Parent Governor
Rob Sanders, Church of England

Contacts

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PUBLIC INFORMATION

Overview and Scrutiny Management Committee

The Overview and Scrutiny Management Committee holds the Executive to account, exercises the call-in process, and sets and monitors standards for scrutiny. It formulates a programme of scrutiny inquiries and appoints Scrutiny Panels to undertake them. Members of the Executive cannot serve on this Committee.

Role of Overview and Scrutiny

Overview and Scrutiny includes the following three functions:

- Holding the Executive to account by questioning and evaluating the Executive's actions, both before and after decisions taken.
- Developing and reviewing Council policies, including the Policy Framework and Budget Strategy.
- Making reports and recommendations on any aspect of Council business and other matters that affect the City and its citizens.

Overview and Scrutiny can ask the Executive to reconsider a decision, but they do not have the power to change the decision themselves.

Use of Social Media:- The Council supports the video or audio recording of meetings open to the public, for either live or subsequent broadcast. However, if, in the Chair's opinion, a person filming or recording a meeting or taking photographs is interrupting proceedings or causing a disturbance, under the Council's Standing Orders the person can be ordered to stop their activity, or to leave the meeting. By entering the meeting room you are consenting to being recorded and to the use of those images and recordings for broadcasting and or/training purposes. The meeting may be recorded by the press or members of the public. Any person or organisation filming, recording or broadcasting any meeting of the Council is responsible for any claims or other liability resulting from them doing so. Details of the Council's Guidance on the recording of meetings is available on the Council's website.

Southampton: Corporate Plan 2020-2025 sets out the four key outcomes:

- Communities, culture & homes - Celebrating the diversity of cultures within Southampton; enhancing our cultural and historical offer and using these to help transform our communities.
- Green City - Providing a sustainable, clean, healthy and safe environment for everyone. Nurturing green spaces and embracing our waterfront.
- Place shaping - Delivering a city for future generations. Using data, insight and vision to meet the current and future needs of the city.
- Wellbeing - Start well, live well, age well, die well; working with other partners and other services to make sure that customers get the right help at the right time

Procedure / Public Representations

At the discretion of the Chair, members of the public may address the meeting on any report included on the agenda in which they have a relevant interest. Any member of the public wishing to address the meeting should advise the Democratic Support Officer (DSO) whose contact details are on the front sheet of the agenda.

Smoking Policy:- The Council operates a no-smoking policy in all civic buildings.

Mobile Telephones:- Please switch your mobile telephones to silent whilst in the meeting

Fire Procedure:-

In the event of a fire or other emergency a continuous alarm will sound and you will be advised by Council officers what action to take.

Access is available for disabled people. Please contact the Democratic Support Officer who will help to make any necessary arrangements.

Dates of Meetings: Municipal Year 2019/20

2020	2021
11 June	14 January
9 July	4 February
13 August	11 March
10 September	15 April
15 October	
12 November	
10 December	

CONDUCT OF MEETING

TERMS OF REFERENCE

The general role and terms of reference for the Overview and Scrutiny Management Committee, together with those for all Scrutiny Panels, are set out in Part 2 (Article 6) of the Council's Constitution, and their particular roles are set out in Part 4 (Overview and Scrutiny Procedure Rules – paragraph 5) of the Constitution.

BUSINESS TO BE DISCUSSED

Only those items listed on the attached agenda may be considered at this meeting.

RULES OF PROCEDURE

The meeting is governed by the Council Procedure Rules and the Overview and Scrutiny Procedure Rules as set out in Part 4 of the Constitution.

QUORUM

The minimum number of appointed Members required to be in attendance to hold the meeting is 4.

DISCLOSURE OF INTERESTS

Members are required to disclose, in accordance with the Members' Code of Conduct, ***both*** the existence ***and*** nature of any "Disclosable Pecuniary Interest" or "Other Interest" they may have in relation to matters for consideration on this Agenda.

DISCLOSABLE PECUNIARY INTERESTS

A Member must regard himself or herself as having a Disclosable Pecuniary Interest in any matter that they or their spouse, partner, a person they are living with as husband or wife, or a person with whom they are living as if they were a civil partner in relation to:

(i) Any employment, office, trade, profession or vocation carried on for profit or gain.
(ii) Sponsorship:
Any payment or provision of any other financial benefit (other than from Southampton City Council) made or provided within the relevant period in respect of any expense incurred by you in carrying out duties as a member, or towards your election expenses. This includes any payment or financial benefit from a trade union within the meaning of the Trade Union and Labour Relations (Consolidation) Act 1992.
(iii) Any contract which is made between you / your spouse etc (or a body in which the you / your spouse etc has a beneficial interest) and Southampton City Council under which goods or services are to be provided or works are to be executed, and which has not been fully discharged.
(iv) Any beneficial interest in land which is within the area of Southampton.
(v) Any license (held alone or jointly with others) to occupy land in the area of Southampton for a month or longer.
(vi) Any tenancy where (to your knowledge) the landlord is Southampton City Council and the tenant is a body in which you / your spouse etc has a beneficial interests.
(vii) Any beneficial interest in securities of a body where that body (to your knowledge) has a place of business or land in the area of Southampton, and either:

a) the total nominal value of the securities exceeds £25,000 or one hundredth of the total issued share capital of that body, or
b) if the share capital of that body is of more than one class, the total nominal value of the shares of any one class in which you / your spouse etc has a beneficial interest that exceeds one hundredth of the total issued share capital of that class.

Other Interests

A Member must regard himself or herself as having an, 'Other Interest' in any membership of, or occupation of a position of general control or management in:

Any body to which they have been appointed or nominated by Southampton City Council

Any public authority or body exercising functions of a public nature

Any body directed to charitable purposes

Any body whose principal purpose includes the influence of public opinion or policy

Principles of Decision Making

All decisions of the Council will be made in accordance with the following principles:-

- proportionality (i.e. the action must be proportionate to the desired outcome);
- due consultation and the taking of professional advice from officers;
- respect for human rights;
- a presumption in favour of openness, accountability and transparency;
- setting out what options have been considered;
- setting out reasons for the decision; and
- clarity of aims and desired outcomes.

In exercising discretion, the decision maker must:

- understand the law that regulates the decision making power and gives effect to it. The decision-maker must direct itself properly in law;
- take into account all relevant matters (those matters which the law requires the authority as a matter of legal obligation to take into account);
- leave out of account irrelevant considerations;
- act for a proper purpose, exercising its powers for the public good;
- not reach a decision which no authority acting reasonably could reach, (also known as the "rationality" or "taking leave of your senses" principle);
- comply with the rule that local government finance is to be conducted on an annual basis. Save to the extent authorised by Parliament, 'live now, pay later' and forward funding are unlawful; and
- act with procedural propriety in accordance with the rules of fairness.

AGENDA

1 APOLOGIES AND CHANGES IN PANEL MEMBERSHIP (IF ANY)

To note any changes in membership of the Panel made in accordance with Council Procedure Rule 4.3.

2 DISCLOSURE OF PERSONAL AND PECUNIARY INTERESTS

In accordance with the Localism Act 2011, and the Council's Code of Conduct, Members to disclose any personal or pecuniary interests in any matter included on the agenda for this meeting.

NOTE: Members are reminded that, where applicable, they must complete the appropriate form recording details of any such interests and hand it to the Democratic Support Officer.

3 DECLARATIONS OF SCRUTINY INTEREST

Members are invited to declare any prior participation in any decision taken by a Committee, Sub-Committee, or Panel of the Council on the agenda and being scrutinised at this meeting.

4 DECLARATION OF PARTY POLITICAL WHIP

Members are invited to declare the application of any party political whip on any matter on the agenda and being scrutinised at this meeting.

5 STATEMENT FROM THE CHAIR

6 MINUTES OF THE PREVIOUS MEETING (INCLUDING MATTERS ARISING) (Pages 1 - 2)

To approve and sign as a correct record the Minutes of the meetings held on 10th September, 2020 and to deal with any matters arising, attached.

7 AIR POLLUTION IN SOUTHAMPTON DURING LOCKDOWN (Pages 3 - 90)

Report of the Cabinet Member for Green City and Place detailing a summary of air quality variations in Southampton during the lockdown period, including indications of whether Southampton's experiences were consistent with other cities and those assumptions that support the Council's Clean Air Strategy.

8 CITY VISION - PROGRESS UPDATE (Pages 91 - 144)

Report of the Cabinet Member for Green City and Place detailing the City Vision progress update.

Wednesday, 7 October 2020 Service Director – Legal and Business Operations

SOUTHAMPTON CITY COUNCIL
OVERVIEW AND SCRUTINY MANAGEMENT COMMITTEE

MINUTES OF THE MEETING HELD ON 10 SEPTEMBER 2020

Present:	Councillors S Galton (Chair), Fuller (Vice-Chair), Bell, Bunday, Cooper, Harwood, Renyard, Fitzhenry and Savage
Apologies:	Councillors P Baillie and Whitbread Appointed Members: Catherine Hobbs, Rob Sanders, Nicola Brown, Francis Otieno and Claire Rogers
Also in attendance:	Councillor Shields, Cabinet Member for Stronger Communities

14. **APOLOGIES AND CHANGES IN PANEL MEMBERSHIP (IF ANY)**

It was noted that following receipt of the temporary resignation of Councillors P. Baillie and Whitbread from the Committee the Service Director – Legal and Business Operations, acting under delegated powers, had appointed Councillors Fitzhenry and Savage to replace them for the purposes of this meeting. The Committee also noted the apologies of Nicola Brown, Catherine Hobbs, Rob Sanders and Francis Otieno the Appointed Members.

15. **MINUTES OF THE PREVIOUS MEETING (INCLUDING MATTERS ARISING)**

RESOLVED that the minutes of the meeting held on 13th August, 2020 be approved and signed as a correct record. In addition, the minutes of the Scrutiny Inquiry Panel – Tackling Childhood Obesity in Southampton meetings held on 25th February, 2020 and 21st July, 2020, were also approved and signed as a correct recording.

16. **RENEWAL OF THE STATEMENT OF LICENSING POLICY – CONSULTATION**

The Committee considered the report of the Cabinet Member for Stronger Committees regarding its response to the consultation for the Statement of Licensing Policy.

Councillor Shields, Cabinet Member for Stronger Communities, Phil Bates (Licensing Manager), Felicity Ridgway (Service Lead – Policy, Partnerships and Strategic Planning), Giles Semper (Executive Director, Go Southampton) and Gary Bennetton (Orange Rooms) were present and with the consent of the Chair addressed the meeting.

The Committee discussed the requirement for businesses to pay both the Late Night Levy and BID contributions, the impact this was having on local businesses combined with the impacts of COVID-19. In particular, there was support for the role the Street Pastors undertake and the importance of this work during the current pandemic.

RESOLVED to support Option C in the consultation document, to cease the Late Night Levy subject to support continuing for the Street Pastors.

17. **CARER FRIENDLY SOUTHAMPTON - SCRUTINY INQUIRY TERMS OF REFERENCE**

The Committee considered the report of the Service Director, Legal and Business Operations requesting that the Committee agree the terms of reference for a scrutiny inquiry focussing on support for carers.

RESOLVED:

(i) that the draft terms of reference for the scrutiny inquiry be approved; and
(ii) that authority be delegated to the Director, Legal and Business Operations, in consultation with the Chair of the Scrutiny Inquiry Panel, to finalise the inquiry plan.

18. **MONITORING SCRUTINY RECOMMENDATIONS TO THE EXECUTIVE**

The Committee noted the report of the Service Director – Legal and Business Operations enabling the Overview and Scrutiny Management Committee to monitor and track progress on recommendations made to the Executive at previous meetings

DECISION-MAKER:	OVERVIEW AND SCRUTINY MANAGEMENT COMMITTEE
SUBJECT:	AIR POLLUTION IN SOUTHAMPTON DURING LOCKDOWN
DATE OF DECISION:	15 OCTOBER 2020
REPORT OF:	CABINET MEMBER FOR GREEN CITY AND PLACE

CONTACT DETAILS				
Executive Director	**Title**	Executive Director Place		
	Name:	Kate Martin	Tel:	023 8083 4670
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STATEMENT OF CONFIDENTIALITY
None

BRIEF SUMMARY

At the request of the Overview and Scrutiny Management Committee (OSMC), this report is provided to offer a summary of air quality variations in Southampton during the lockdown period and to indicate whether Southampton's experiences were consistent with other cities and those assumptions that support the council's Clean Air Strategy.

The lockdown imposed to reduce the spread of coronavirus resulted in a significant reduction in traffic on our roads whilst the port in Southampton saw an upsurge in cruise ship visits as cruises were cancelled. Other cities reported significant improvements in air quality in response to reduced road traffic emissions. In Southampton concerns were raised amongst local interest groups regarding the cities air quality and whether it was indeed experiencing the same improvements reported elsewhere.

Short term trends in air quality can be difficult to determine as underlying changes in emissions can be readily masked or exaggerated by weather conditions. To determine, with confidence, if local changes were consistent with expectations and trends elsewhere, a detailed statistical assessment was commissioned (the assessment). This differentiated between the effects of weather and key emission sources before and during the lockdown period.

The assessment was able to demonstrate that; • Weather has a greater influence on air quality concentrations than emissions; • Southampton experienced significant reductions in nitrogen oxides (NO_x) and nitrogen dioxide in response to reduced road traffic; • There is a correlation between pollution levels at monitoring locations and wind direction from road sources; • As a guide to the impact that reduced traffic levels can have, average concentrations of NO_2 at the automatic monitoring stations would be around a third lower in 2020 than in 2019 if July traffic levels are maintained for the remainder of the year; • When meteorological effects are removed, the rate of NOx reduction in Southampton and other South coast cities was found to be lower than most other monitoring locations in the UK suggesting that transboundary sources (i.e.originating from across continental Europe) may be maintaining stable background levels across the region; • Southampton experienced a statistical increase in particulate matter (PM) during the lockdown period indicating that that concentrations are more readily affected by weather and sources other than road traffic; • An increased in measured pollutants occurred in April that could not be explained by traffic levels or weather and; • There was no statistical relationship between cruise ship activity and peak pollutants concentrations.	
Although not definitive there is some evidence to suggest that activity in the direction of the port or other nearby industrial sources could have an impact on measured pollutant levels.	
RECOMMENDATIONS:	
(i)	That the committee considers the contents of this report.
REASONS FOR REPORT RECOMMENDATIONS	
1.	To enable the Overview and Scrutiny Management Committee to consider how the circumstances resulting from the pandemic lockdown affected air quality in Southampton and how this might relate to current and future assessments and strategies to improve local air quality.
ALTERNATIVE OPTIONS CONSIDERED AND REJECTED	
2.	None
DETAIL	
3.	Following lockdown, improvements in air quality were widely reported in the national media in response to reductions in road traffic emissions. Locally, questions were raised concerning the extent of improvements in Southampton and whether it was experiencing the same trends that other cities across England and the world were reporting. Campaigners questioned whether some peak levels were potentially a result of other local sources such as cruise ships visiting the port. SCC undertook a simple analysis in early April which suggested that concentrations of nitrogen dioxide had reduced by as much as a third during lockdown when compared with the previous year. An increase in particulates (PM) was also identified, thought to originate from transboundary sources during recognised pollution events which affected much of England in spring. Saharan dusts and

	seasonal application of ammonia fertilisers across Europe are often cited as an issue at this time of the year. However, it was not possible to report with confidence if these changes could be attributed to the reduction in road traffic emissions, changes in port activity or how they might compare with other cities. To achieve this, it would be necessary remove the effect of weather, which will readily mask and/or exaggerates underlying air quality trends.
4.	Consequently, Ricardo were commissioned to undertake a detailed statistical analysis of air quality data from Southampton's monitoring network and compare it with data from the national network, meteorological data, local road traffic trends and other key sources of emissions including shipping.
5.	All assessments to date have been undertaken during the annual reporting period. Therefore 2020 monitoring data would have yet to be subjected to the full ratification process and, as such, the results and conclusions presented must be considered in this context.
6.	Ricardo's assessment reports several key conclusions regarding the key pollutants measured in Southampton:
	Nitrogen Oxides (NOx) and Nitrogen Dioxide (NO_2)
7.	Nitrogen oxides are a group of gases and compounds generally generated during combustion processes and collectively known as NOx. Nitrogen dioxide is known to be harmful to health, causing inflammation of the airways and can exacerbate the symptoms of those already suffering from lung or heart conditions. Like may cities Southampton has experienced levels that persistently exceed statutory limit levels (40 µg/m3 annual average) and in 2019 introduced a set of transport focused measures in a Local Nitrogen Dioxide Plan (aka Non-Charging Clean Air Zone) to ensure legal levels were achieved in the shortest possible time.
8.	The assessment demonstrated a correlation between wind direction from road sources and measured levels of NO_2 indicating that traffic was the predominant source for NO_2 both during and prior to lockdown.
9.	The assessment used 'partial dependence plots' to see how changes to various factors correlate with concentrations. This analysis demonstrates that changes in meteorology are responsible for 57% of the variation in concentrations of NO_2 at the A33 monitoring site whilst 27% can be explained by changes in road vehicle activity. Putting aside meteorology, road vehicle movements would then explain 63% of the variations in concentrations, with the remaining 37% being an outcome of unmeasurable or unknown factors. This supports previous assessments which have indicated that road transport is the most significant source of NO_2 in Southampton.
10.	Substantial decreases in concentrations of both nitrogen oxides (NO_x) and nitrogen dioxide (NO_2) were monitored by Southampton's four automatic monitoring sites during the lockdown period (April-June for this report), compared to business as usual.
11.	Concentrations of NO_x during lockdown at roadsides sites were, as an average between the sites, 34% lower than previous years (business as usual).
12.	Concentrations of NO_2 during the lockdown at roadside sites were, as an average between the sites, 12% lower than business as usual.

13.	The lowest decrease in NO_x/NO_2 was measured at the Brintons Road background site where road vehicles have a far lower influence on concentrations. This again supports previous assessments regarding emission sources.
14.	While concentrations of NO_x at Victoria Road were 29% lower during lockdown compared to business as usual, concentrations of NO_2 fell by only 1% and showed little improvement across the lockdown months. It is currently difficult to determine if this might be due to local circumstances affecting pollutant concentrations or a discrepancy in monitoring data. Further assessment when the data is subject to annual ratification will be required to achieve a better understanding of this apparent anomaly.
15.	Decreases of NO_2 and NO_x during lockdown were typically lower than those seen in other UK cities, but similar to the cohort of monitoring locations in other south coast cities. This indicates that regional meteorological and geographical factors have influenced concentrations on the centre-south coast over lockdown. Background contribution from continental Europe would be more likely to affect this region than other parts of the UK and is a potential cause of this phenomenon.
16.	Annual average concentrations are a good guide for assessing air quality trends. It would be difficult to determine what reported levels for 2020 are likely to look like as traffic levels remain unpredictable. However, as a guide, if July traffic levels are maintained for the remainder of the year, it is predicted that annual average concentrations of NO_2 at the automatic monitoring stations will be around a third lower than in 2019.
	Particulate Matter (PM)
17.	Airborne particulate matter is made up of a collection of solid and/or liquid materials of various sizes but is most commonly reported as PM_{10} (particles less than 10µm in diameter) and $PM_{2.5}$ (particles less than 2.5µm in diameter). It consists of both primary components, which are released directly from the source into the atmosphere, and secondary components, which are formed in the atmosphere by chemical reactions. Particulate matter comes from both humanmade and natural sources including windblown dusts and salts, agriculture, domestic wood burning, bonfires, shipping and road transport. It contains a range of chemical compounds and the identity of these compounds provides clues to its origin. PM10 exposure has been associated with a wide range of health impacts but impacts are most evident among those susceptible groups with pre-existing lung or heart disease and/or the elderly and children. Current statutory standards are not exceeded in Southampton but there is growing evidence that long term exposure to any elevated levels can impact on public health.
18.	As with NOx and NO2, PM levels were affected by weather conditions with levels at their highest during low wind speeds when dispersion is low.
19.	There is a dominant source of PM with strong South Westerly winds which might be attributed to sea salt particles.
20.	At the two stations where PM is measured, a statistical increase was identified during the lockdown period compared to business as usual indicating that PM concentrations are derived from a wider range of sources than NO_x. Particulate matter concentrations increased by a far greater proportion at the A33 monitoring station compared to the city centre site

	suggesting that sea salt particles may be a local source. Citywide compliance with national air quality objectives has remained unthreatened.
21.	Maximum PM levels correspond with wind directions and road alignment indicating traffic remains a predominant source.
22.	During lockdown period a potential source of fine particulates ($PM_{2.5}$) to the South East of the city centre was potentially detected.
	Sulphur Dioxide (SO_2)
23.	Sulphur dioxide (SO_2) is formed during the combustion of fuels containing sulphur, the most significant being fossil fuels. Sulphur dioxide is a respiratory irritant and is toxic at high concentrations. It is also damaging to ecosystems and a major precursor in the formation of acid rain. Levels in the UK have reduced significantly in recent years due to the introduction of low sulphur fuels and in Southampton levels fall well below statutory standards. But monitoring trends can help identify changes in local fossil fuel emissions.
24.	SO2 is measured at the Southampton Centre monitoring station and levels remain safely below statutory standards for ambient concentrations and suggest there are no significant sources influencing SO_2 levels in the city. Levels remained low enough during the lockdown that any analysis of trends would have offered little value.
	Shipping Activity
25.	The assessment looked for any statistical correlation between cruise ship activity and changes in PM and SO_2 concentrations. None was identified. Associated British Ports provided descriptive evidence on shipping activity during lockdown which showed that, while the number of cruise ships at berth was on average higher than business as usual, energy usage per ship was lower than business as usual as a result of very limited usage of most decks. Activity of container ships was similar to business as usual while car carriers were far less active.
	Conclusions
26.	The assessment illustrates that the reductions in road traffic resulting from the lockdown are able to demonstrate how large reductions in concentrations of NO2 and NOx can be realised. Like other cities, Southampton has locations where NO_2 levels have exceeded both European and UK standards. Previous assessments have indicated that emissions from road traffic are the primary source and compliance would most likely be achieved by actions that reduce this emission source. SCC's Clean Air Strategy and Action Plan and the Local NO_2 Plan (aka Non-Charging Clean Air Zone) have done just this. This latest evidence supports that approach and indicates that levels between 21µg/m^3 and 27µg/m^3 could be well within reach if reductions in traffic emissions similar to those seen in July 2020 were maintained.
27.	The assessment shows that PM trends are far more difficult to explain. Whilst levels in Southampton do not exceed any current statutory levels it is widely acknowledged that elevated levels can have a corresponding impact on public health. PM is a key priority in the government's 2019 Clean Air Strategy and it is anticipated that the new Environment Bill will introduce additional duties for local authorities to manage and reduce concentrations. This assessment highlights that any strategy to achieve this will need to look beyond contributions from road transport in order to achieve tangible reductions.

	SCC is already being active in this area and is currently planning a campaign to improve emissions from domestic sources like stoves, fireplaces and bonfires by promoting good practice.
28.	The assessment highlights the value of air quality modelling which is able to identify underlying trends without the influence of weather. The assessment of the lockdown period has demonstrated that concentrations of pollutants can be significantly affected by weather conditions and short-term trends can be especially difficult to determine without the help of detailed assessment. A reliance on monitoring data without any support from statistical analysis or modelling is readily open to misinterpretation and ongoing evaluation of local actions to improve local air quality are best served by using a combination of both.
29.	Southampton's geography and circumstance suggests that it is affected by a wider spectrum of airborne pollution sources than other urban areas in the UK. Contributions from naturally occurring and transboundary sources are likely to mean that local air quality management efforts may need to be more significant than those in other areas to realise the same level of improvement.
30.	Local Authorities have a statutory duty to submit an Annual Status Report (ASR) to the Department of Food, Environment and Rural Affairs. The next submission will be due in June 2021 allowing time to both collate and assess ratified data for 2020. This will provide an opportunity to review the impacts of the lockdown and Southampton's experiences with more confidence.
31.	The 2020 Environment Bill is anticipated to present Local Authorities with new duties regarding local air quality and specifically with regard to PM. A review of SCCs' Clean Air Strategy and Air Quality Action Plan will be required in response. Further clarification on the findings of the recent lockdown assessment, as part of the ASR, will ensure this can be conducted in an informed manner with local circumstances very much at the centre of the process.
RESOURCE IMPLICATIONS	
Capital/Revenue	
32.	There are no direct financial implications as a result of this report.
Property/Other	
33.	None
LEGAL IMPLICATIONS	
Statutory power to undertake proposals in the report:	
34.	N/A
Other Legal Implications:	
35.	Projected NO_2 concentrations suggest that compliance with the EU Ambient Air Quality Directive limits are now more even more likely to be met in Southampton in 2020 and, if reductions in road traffic persist, more likely to be maintained for future years. SCC's ability to satisfy the expected outcomes of its Local Nitrogen Dioxide Plan (aka Non-Charging Clean Air Zone) and the associated Ministerial Direction have therefore not been compromised.
RISK MANAGEMENT IMPLICATIONS	

36.	The assessment has provided additional insight into local air quality behaviour and demonstrates that all current efforts and activities to deliver improvements are appropriate and relevant to our statutory obligations.
POLICY FRAMEWORK IMPLICATIONS	
37.	The assessment suggests SCC's adopted Green City Plan and Clean Air Strategy remains suitable and relevant but is likely to require review if additional efforts to improve PM are required or imposed on the council.

KEY DECISION?	**No**	
WARDS/COMMUNITIES AFFECTED:	N/A	
SUPPORTING DOCUMENTATION		
Appendices		
1.	2020 COVID-19 lockdown period - Air Quality Analysis. Report for Southampton City Council by Ricardo.	
2.	2020 COVID-19 lockdown period - Air Quality Analysis: Adendum. Report for Southampton City Council by Ricardo.	

Documents in Members' Rooms

1.	None	
Equality Impact Assessment		
Do the implications/subject of the report require an Equality and Safety Impact Assessment (ESIA) to be carried out?		**No**
Data Protection Impact Assessment		
Do the implications/subject of the report require a Data Protection Impact Assessment (DPIA) to be carried out?		**No**
Other Background Documents **Other Background documents available for inspection at:**		
Title of Background Paper(s)		**Relevant Paragraph of the Access to Information Procedure Rules / Schedule 12A allowing document to be Exempt/Confidential (if applicable)**
1.	None	

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RICARDO

2020 COVID-19 lockdown period – Air Quality Analysis

Report for Southampton City Council

ED11464138 | Issue number 2 | Date 30/07/2020

Customer:

Southampton City Council

Customer reference:

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Dr Scott Hamilton, Dr Guy Hitchcock

Signed

Date:

30th July 2020

Ref: ED 11464138

Ricardo is certified to ISO9001, ISO14001, ISO27001 and ISO45001

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Table of Figures

1 Introduction

The following report provides an analysis of pollutant measurements in Southampton both during and before the recent 'social distancing and subsequent lockdown' associated with the COVID 19 crisis in the UK.

We have presented various analyses of air quality measurements in Southampton and how they relate to observed meteorological conditions. The analysis includes measurements of nitrogen dioxide (NO_2) and fine particulate matter in the PM_{10} and $PM_{2.5}$ fractions; and has been conducted using the R openair package and a cumulative sum difference (cusum) method.

Four types of analysis are presented:

- Weather conditions – typical, pre-lock down and during lock-down
- Time series analysis – pollutant measurements vs road traffic activity data and weather conditions.
- Cumulative sum difference (cusum) analysis – this builds on the initial time-series analysis by comparing observations with a business as usual scenario; and simulates removing the effect of weather conditions.
- Directional analysis using bivariate polar plots – presenting measured pollutant concentrations varying by wind speed and wind direction. **Please note:** In addition to this report, we have also provided these plots presented on polar maps in html file format that can be interactively viewed by the reader using a web browser.

1.1 Limitations

Please note this report presents an indicative analysis based on the information available to us at the time of writing. The information presented should be considered in context with the following limitations:

- All 2020 NO_2, PM_{10} and $PM_{2.5}$ pollutant measurement data included in the analysis from the automated sites in Southampton **were unratified at the time of conducting the analysis**; no quality assurance checks, data scaling or removal of spurious data has been conducted for these pollutants. **Caution is recommended when interpreting analysis of unratified measurement data. The results and conclusions presented here should be considered in this context.**
- No analysis of 2020 SO_2 data measured at the Southampton Centre AURN measurement site has been presented due to measured concentrations being so low during the period when social distancing and lock-down restriction were in place; i.e. ambient SO_2 concentrations measured at the Southampton Centre AURN site indicate that there are no significant sources influencing SO_2 levels at that location.
- Traffic count data was not available for the roads immediately adjacent to each roadside air quality measurement station. As the best available proxy, count data from the closest relevant ATC site has been presented to provide a comparison where is it within a reasonable distance of the air quality measurement station.
- At the time of writing we were unable to access shipping activity data covering the lock down period, so could not provide a direct comparison of measured pollutant concentrations with changes in activity in the harbour (this is now included in an Addendum to this report)

2 Analysis

2.1 Weather conditions

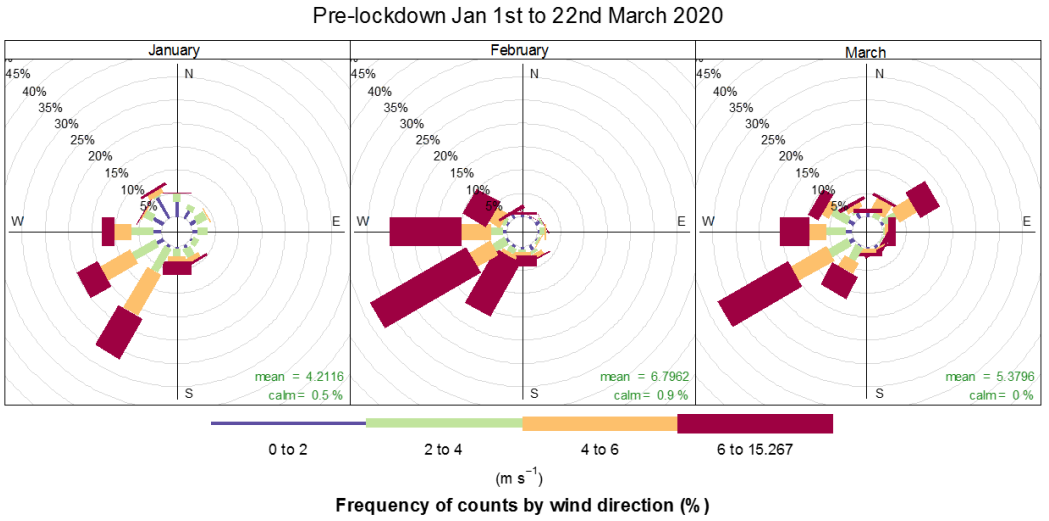
The effect of the weather is an important consideration when analysing air quality measurement data. This is particularly relevant when comparing pollutant measurements and considering nearby sources between two distinct time periods e.g. in this case 'pre-lockdown' and 'during-lockdown' conditions. If weather is not considered it can lead us to spurious conclusions about the causality of a change in concentrations. We might assume, for instance, that a reduction in concentrations of a pollutant is linked to a drop in emissions, when in fact it may be due to higher winds creating more favourable conditions for pollutant dispersion.

The frequency of wind speed and direction are presented for each period in 2020 using simple wind roses (Figure 1) and in more detail using polar frequency plots (Figure 2). Please note: The observations presented here are from the Bournemouth meteorological measurement station as data capture was very low at the Southampton airport measurement station during the lock down period.

The main observations from these diagrams are:

- South westerly winds were predominant during the pre-lockdown period, whereas north easterly winds were more frequent during the initial days of the lock-down and in May
- The highest south westerly wind speeds occurred during February and early March prior to the lockdown.

Figure 1: Wind roses - periods in 2020 before and during the lockdown period



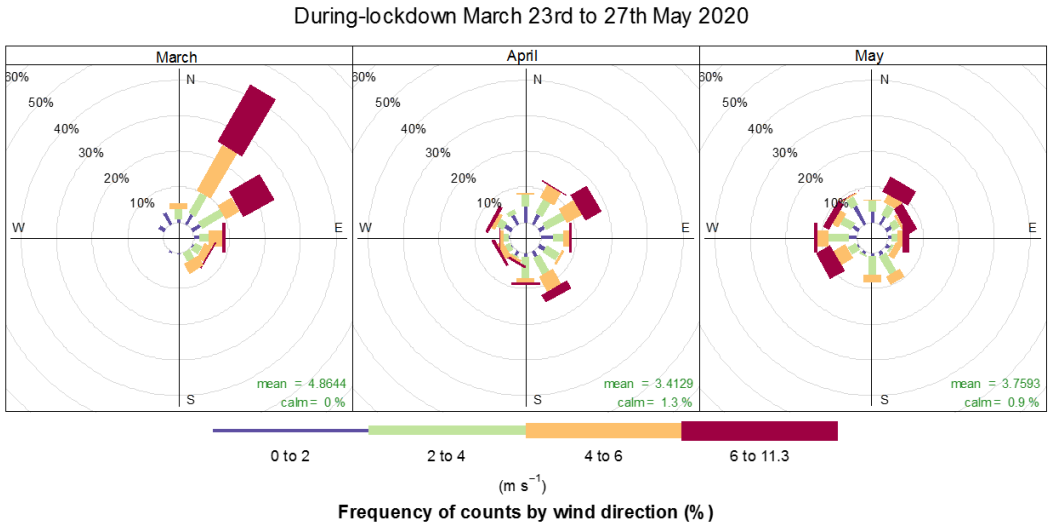
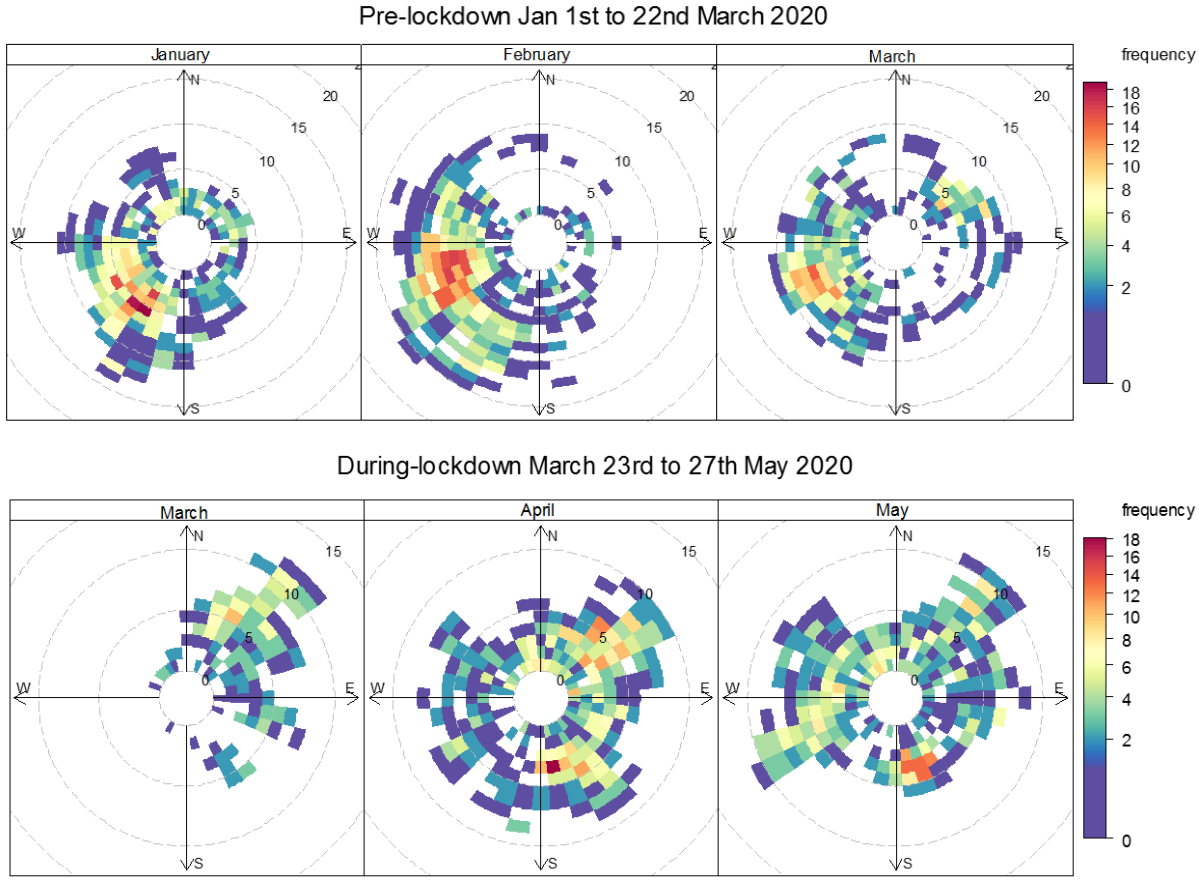


Figure 2: Polar frequency of wind speed and direction



Note: Wind speed units (m.s^{-1})

2.2 Time-series analysis

In this section we present time-series analysis of measured pollutant concentrations at roadside measurement sites in comparison with observed daily traffic activity during the period 6th March 2020 to 15th May 2020.

We also present time-series of measured pollutant concentrations at the Southampton urban centre/urban background. Comparison with traffic activity was not considered relevant at the Southampton centre site, as urban centre/background sites are typically located away from major road sources.

At the time of writing, we were unable to access shipping activity data covering the lock down period, so could not provide a comparison of measured pollutant concentrations with changes in activity in the harbour.

2.2.1 Roadside measurement sites

At roadside locations NOx concentrations are generally closely linked to primary emissions from vehicles and should show the direct impact of reduced local traffic activity on air pollution. NO_2 will be from a mixture of primary vehicle emissions and secondary chemical reactions but should again be closely linked to local traffic activity. Changes in PM_{10} concentrations are also associated with nearby traffic activity but are also linked to secondary atmospheric formation; so are more likely to be influenced by background concentrations and regional/transboundary fluctuations

Southampton City Council operate three roadside air quality measurement stations and one urban centre/ urban background site. Automatic traffic count (ATC) sites are located throughout the city road network.

Traffic count data was not available for the roads immediately adjacent to each roadside air quality measurement station. As the best available proxy, count data from the closest relevant ATC site has been presented to provide a comparison where is it within a reasonable distance of the air quality measurement station.

The ATC locations used at each monitoring site are listed in Table 2.1. There was no data available that represented a reasonable proxy for traffic at Victoria Road. As stated above, comparison with traffic activity was not considered relevant at the Southampton centre site, as urban centre/background sites are usually located away from major road sources.

Table 2.1: Traffic count locations used as

Air quality measurement site	Pollutants measured	Nearest available automatic traffic count location
Southampton A33 roadside AURN	NOx, NO_2, PM_{10}	Millbrook Rd West
Onslow Road (roadside)	NOx, NO_2	Thomas Lewis Way
Victoria Road (roadside)	NOx, NO_2	No available nearby proxy
Southampton centre AURN (urban centre/ background)	NOx, NO_2, PM_{10}, $PM_{2.5}$ O_3, SO_2	N/A as not roadside measurement site

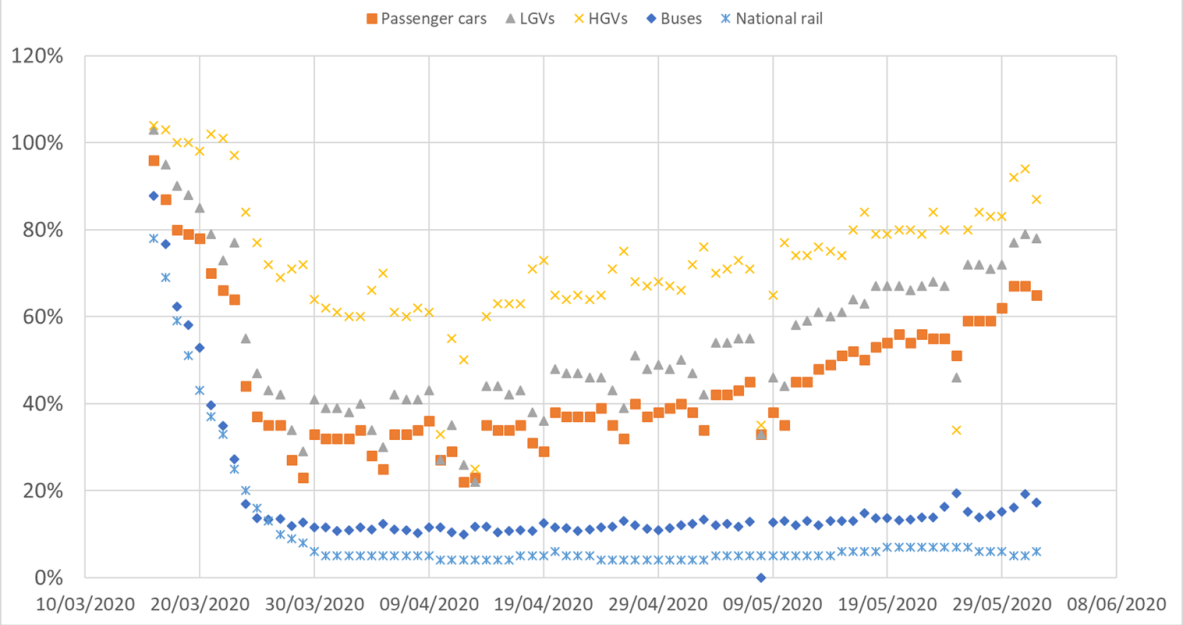
2.2.1.1 Southampton A33 (roadside) AURN measurement site

Time-series plots showing hourly measured concentrations of NOx, NO_2 and PM_{10} at the Southampton A33 site during the period 6th March 2020 to 15th May 2020 are presented in Figure 4 with the corresponding daily traffic activity at Millbrook Road West shown in Figure 4.

To consider these plots in context with the timing of government guidance related to the COVID 19 crisis, and hence public and traffic activity; social distancing was advised on the 16th March and lockdown was enforced one week later on the 23rd March.

It's clear from the traffic activity plot that the daily number of vehicles decreased significantly from March 16th onwards; and by the beginning of April, weekday counts appear to be around 20% of the counts observed in early March. Daily counts then slowly increase throughout April and early May to approximately 30% of the pre-lock down observations. This is broadly in line with UK Government statistics[1] for the trunk road network over the same time interval (shown in Figure 3 below); a sharp decrease is observed until late March before a gradual increase in traffic in later weeks.

Figure 3: Use of transport modes in the UK- March to June 2010. Source: UK Government



The NOx, NO_2 and PM_{10} time-series covering the same period do not show a similar decrease in measured pollutant concentrations. The peak concentrations for all pollutants appear to have been measured during the week in April (6th to 13th) when traffic activity was at its lowest.

It is important however to consider the effect of the weather when comparing air pollution data before and after an intervention that directly changes emissions from a nearby source. In most situations, increasing wind speed results in lower concentrations due to increased mechanical turbulence in the lower atmosphere and enhanced dilution/advection.

A simple analysis of measured NO_2 using calendar plots is presented in Figure 6; two plots have been produced which show daily concentrations laid out in a calendar format; the second plot includes vectors representing wind direction and speed on each day.

When considering wind speed and direction which are the predominant determinants of pollutant dispersion over short distances of a few metres, it's also important to consider the location of the air quality measurement site relative to nearby emission sources. The Southampton A33 AURN analyser is located a few metres north of the southeast bound carriageway of the Redbridge Road section of the A33.

Examination of the calendar plots indicates that the highest NO_2 concentrations are measured on days when the average wind speed was low i.e. dispersion was poor.

The peak concentrations measured during the week in April (6th to 13th) when traffic activity was at its lowest during the lockdown also coincide with low average wind speeds in a direction roughly perpendicular to the route of the A33 i.e. from the south east.

Similarly, on the 24th and 25th March just after the lockdown began, low winds speeds from a south easterly direction coincide with higher measured NO_2 concentrations; whereas over the next few days up to the end of March, strong north easterly winds coincide with much lower daily measured NO_2

[1] https://www.gov.uk/government/statistics/transport-use-during-the-coronavirus-covid-19-pandemic

concentrations. During these conditions road traffic emissions from the A33 would be blown in the opposite direction from the analyser which is placed to the north of the carriageway; dispersion would also occur more readily as a result of the higher wind speeds.

Examination of other days during the lockdown when the highest NO_2 concentrations were measured also coincide with low winds speeds from a south easterly direction.

2.2.1.2 Onslow Road (roadside) measurement site

Time-series plots showing hourly measured concentrations of NOx and NO_2 at the Onslow Rd air quality measurement site during the period 6th March 2020 to 15th May 2020 are presented in Figure 4 with the corresponding daily traffic activity at Millbrook Road West shown in Figure 5.

The traffic activity plot for Thomas Lewis Way shows a similar pattern to the A33 count whereby the daily number of vehicles decreased significantly from March 16th onwards; and by the beginning of April, weekday counts appear to be around 30% of the counts observed in early March. Daily counts then slowly increase throughout April and early May to approximately 45% of pre-lock down levels.

There are missing periods in the NO_2 measurement data during mid to late March and early April. From the available data, peak NO_2 measurement also seem to follow a similar temporal profile to the A33 measurement site with maximum concentrations being measured during the same weeks of April and May. From these time-series plots, it is difficult to see any clear change in NO_2 concentrations that can be linked with the reduction in road traffic activity.

Measured daily average NO_2 calendar plots are presented in Figure 6 Similar to the calendar plots for the A33 measurement site, the highest daily average NO_2 concentrations at Onslow Road during the lockdown period were measured on days when low winds speeds were observed and dispersion of localised emissions was likely to be poor. The Onslow Road analyser is located a few metres east of the roadside.

Figure 4: Southampton A33 (roadside) analyser – Time series of (provisional) measured NO_2 and PM_{10} hourly mean concentrations (µg.m^{-3}) 16th March to 15th May 2020

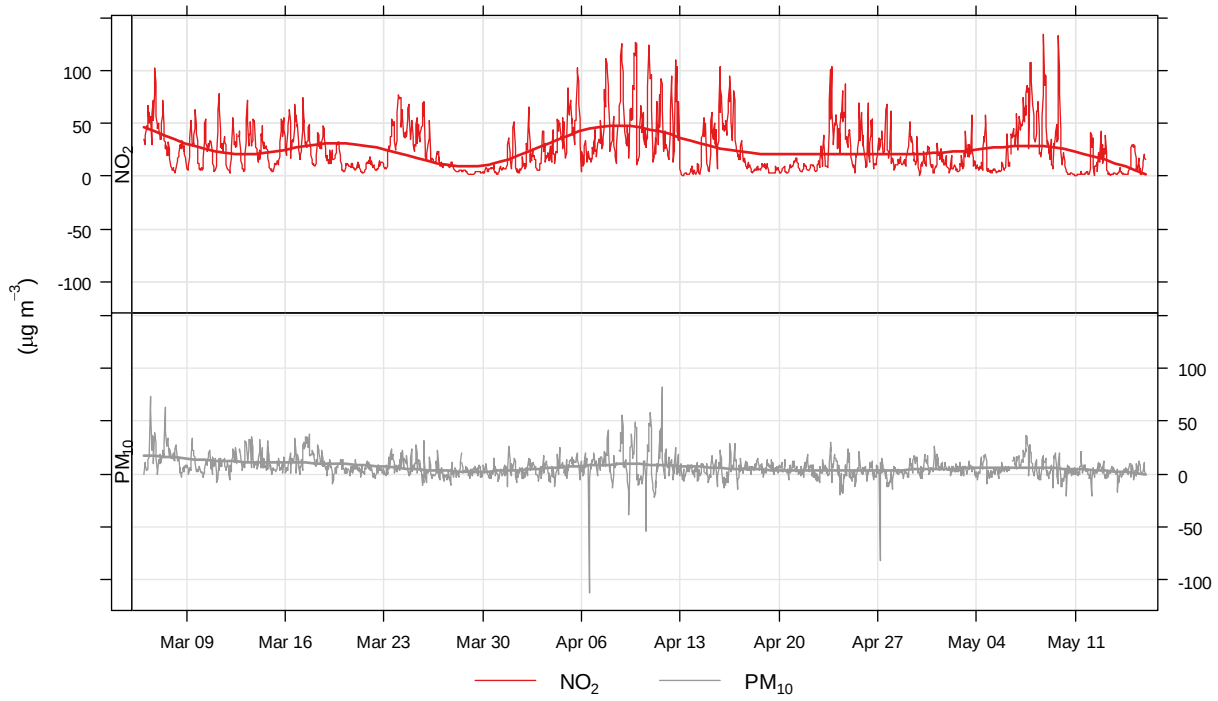


Figure 5: Millbrook Road West automatic traffic count site – Time series of daily average traffic flow (veh/day) 16th March to 15th May 2020

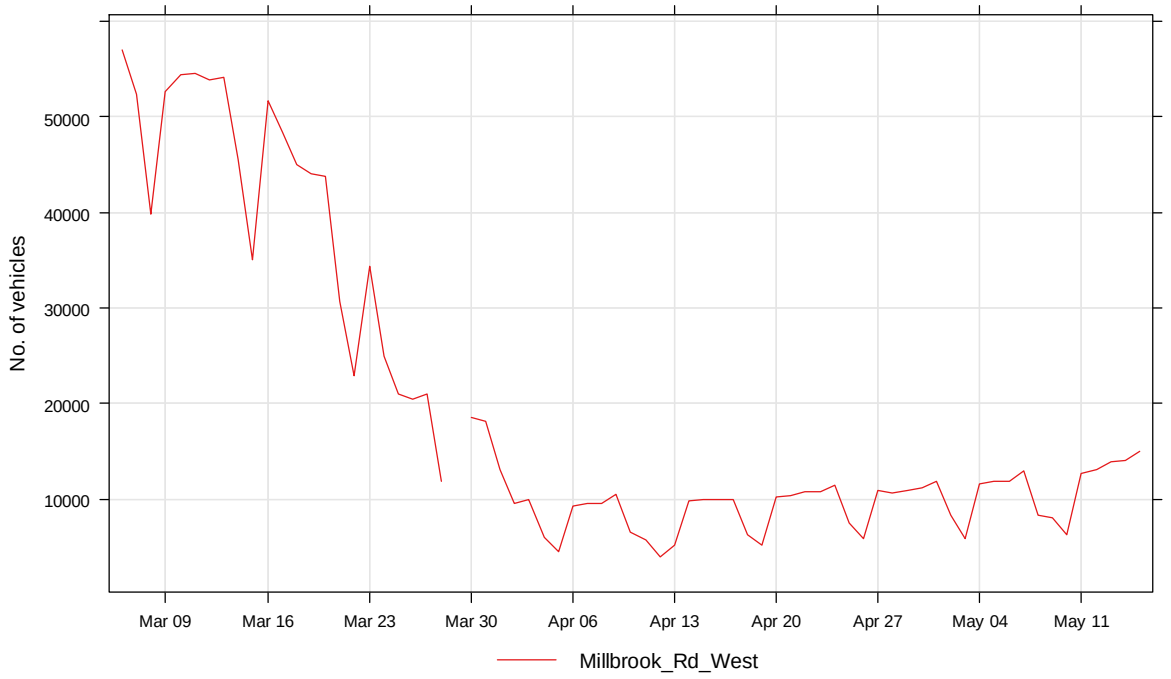
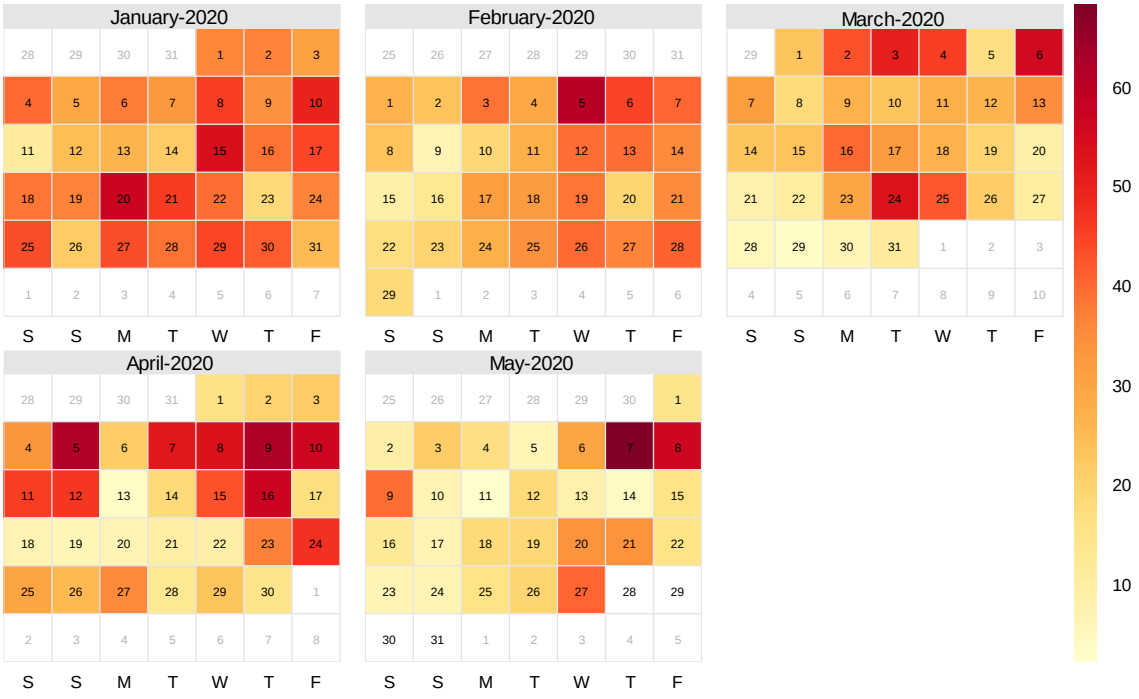


Figure 6: Southampton A33 (roadside) analyser (provisional) measured NO_2 daily mean calendar plots January to May 2020 (lower plot shows wind direction and speed vectors)



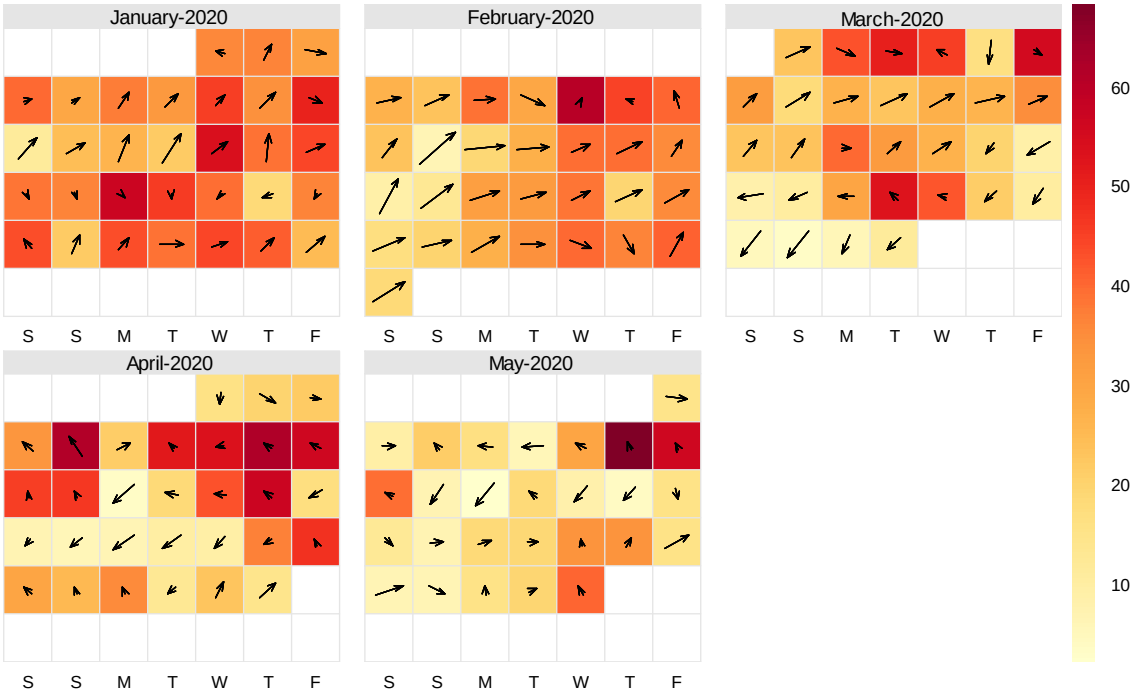


Figure 7: Onslow Road (roadside) analyser – Time series of (provisional) measured NO_2 hourly mean concentrations ($\mu g.m^{-3}$) 16th March to 15th May 2020

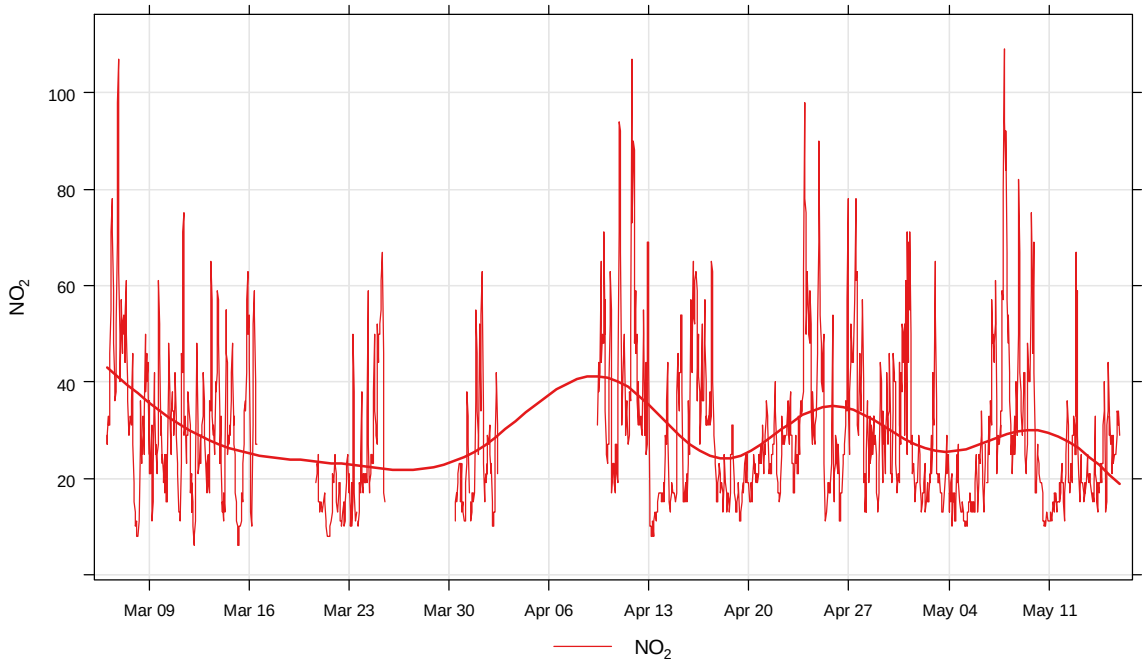


Figure 8: Thomas Lewis Way automatic traffic count site (closest proxy traffic count to Onslow Rd) – Time series of daily average traffic flow (veh/day) 16th March to 15th May 2020

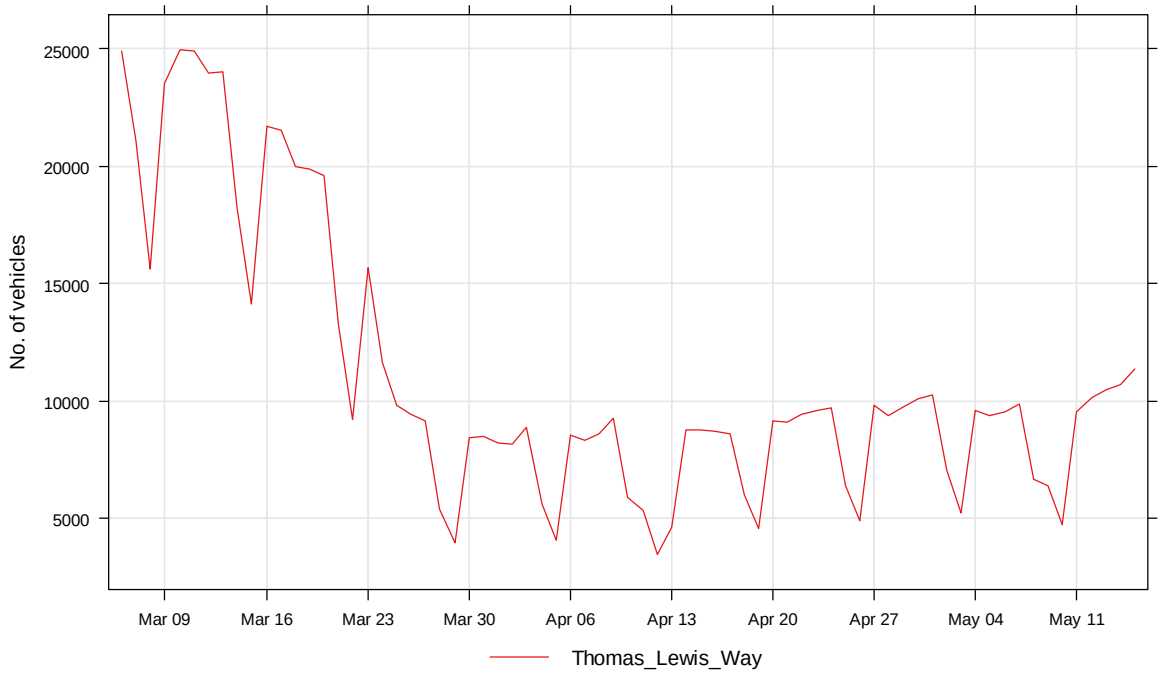
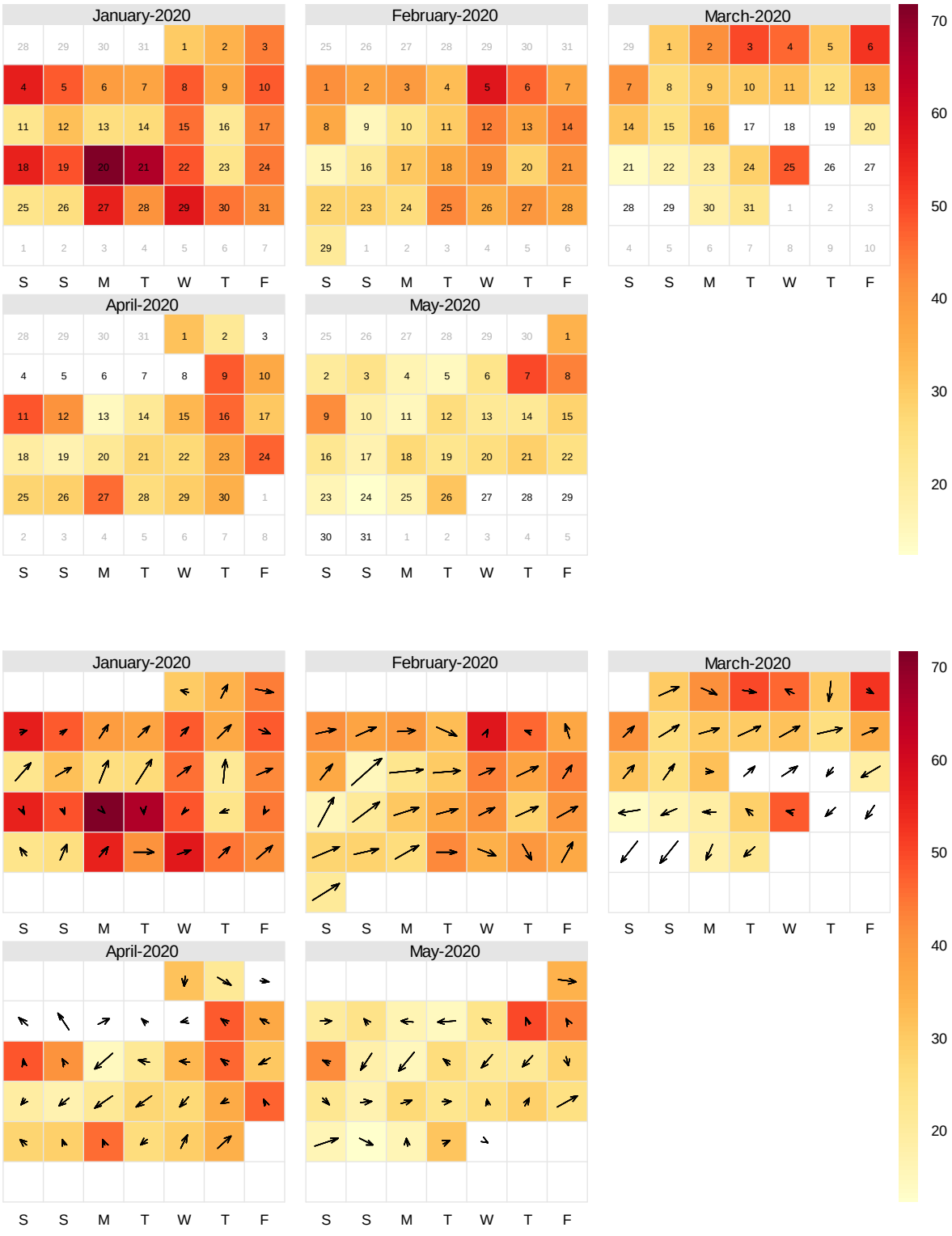


Figure 9: Southampton Onslow Road (roadside) analyser (provisional) measured NO_2 daily mean calendar plots - January to May 2020 (lower plot shows wind direction and speed vectors)



2.2.1.3 Victoria Road (roadside)

A time-series plot showing hourly measured NO_2 concentrations at the Victoria Road air quality measurement site during the period 6th March 2020 to 15th May 2020 is presented in Figure 10. There was no traffic count data available that represented a reasonable proxy for traffic at Victoria Road, it is reasonable to assume that a similar reduction in traffic occurred during the lockdown as at other locations in the city.

Again it is difficult to see any clear change in NO_2 concentrations that can be linked with the reduction in road traffic activity following the lockdown. The Victoria Road analyser is located a few metres to the west of Victoria Road.

Measured daily average NO_2 calendar plots for the Victoria Road site are presented in Figure 11. Similar to the calendar plots for at both the A33 and Onlslow Road measurement sites, the highest daily average NO_2 concentrations at Onslow Road during the lockdown period were measured on the same days when low winds speeds were observed and dispersion of nearby emissions was likely to be poor.

Similar peak periods at all three sites occurred during:

- 6th to 12th April
- April 16th
- April 27th
- May 7th to 9th

Figure 10: Victoria Road (roadside) analyser Time series of (provisional) measured NO_2 hourly mean concentrations ($\mu g.m^{-3}$) 16th March to 15th May 2020

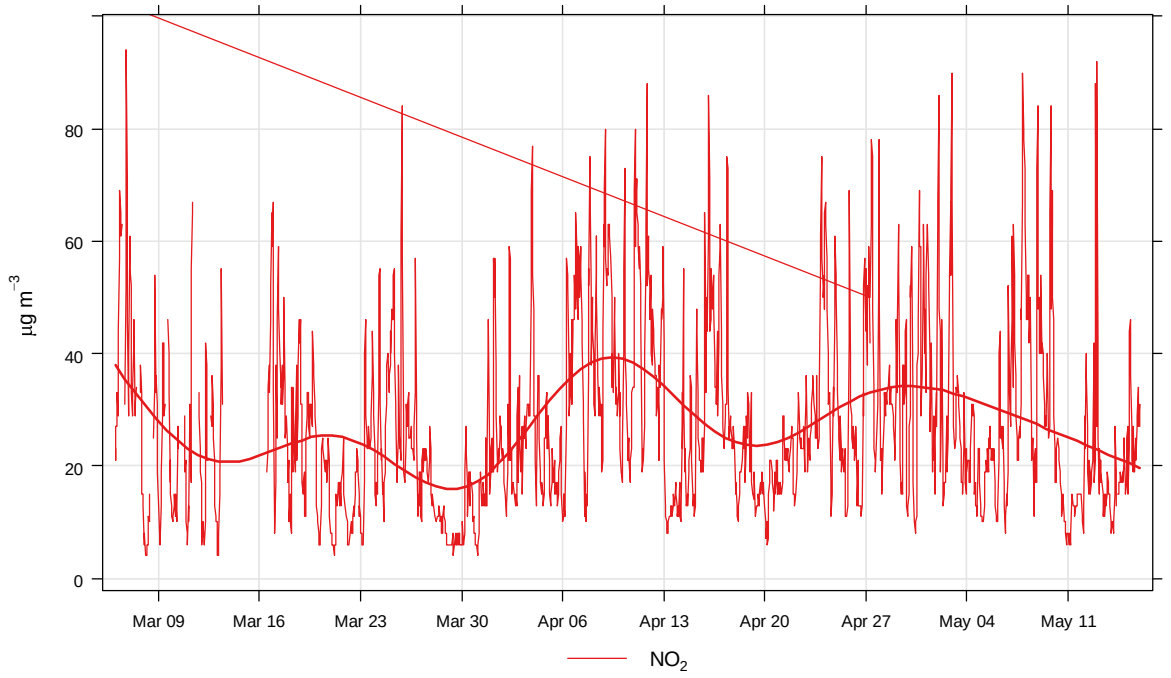
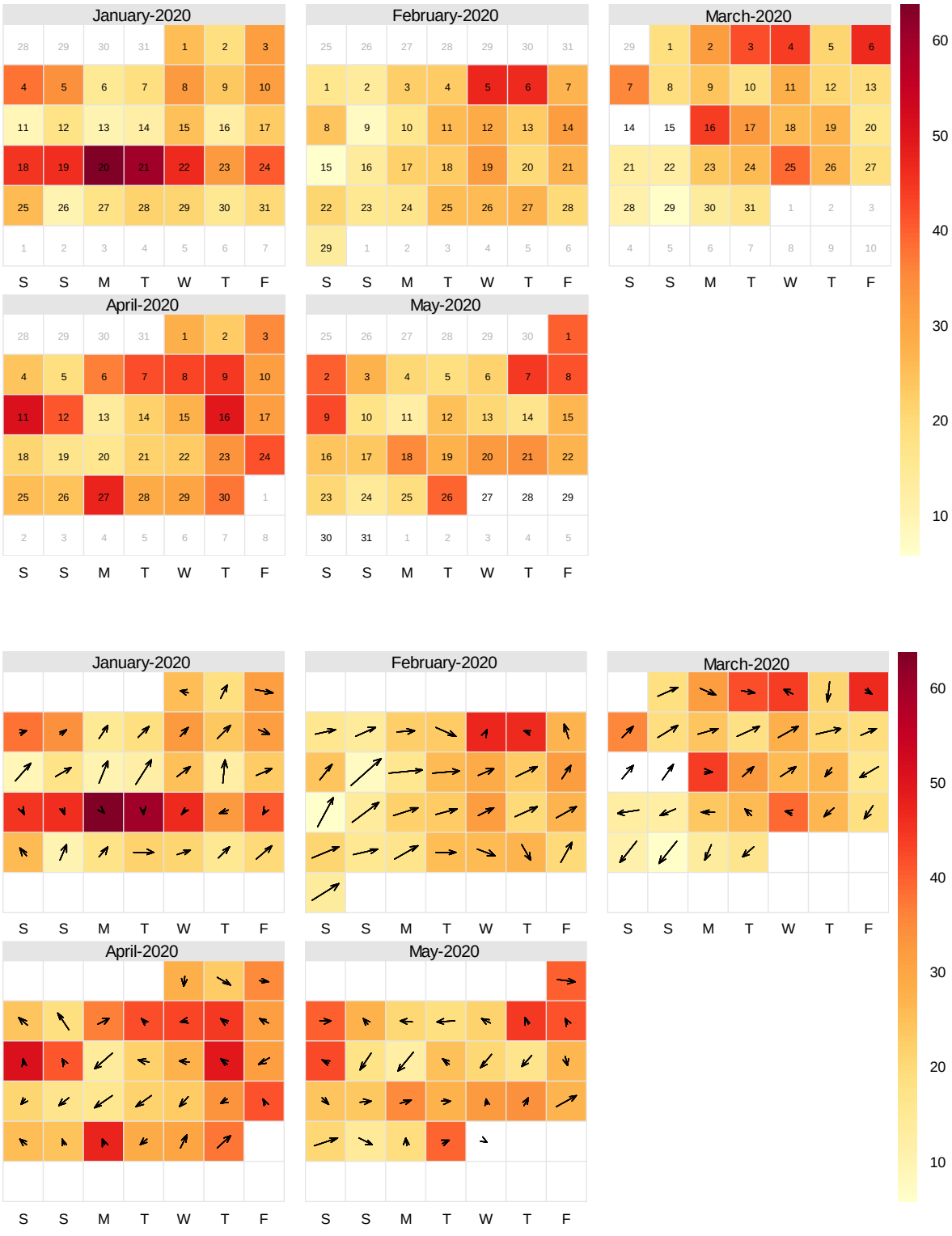


Figure 11: Southampton Victoria Road (roadside) analyser (provisional) measured NO_2 daily mean calendar plots - January to May 2020 (lower plot shows wind direction and speed vectors)



2.2.2 Southampton Centre AURN (Urban Centre) measurement site

Time-series plots showing hourly measured NO_2, PM_{10}, and $PM_{2.5}$ concentrations at the Southampton Centre AURN air quality measurement site during the period 6th March 2020 to 15th May 2020 are presented in Figure 12 followed by calendar plots for NO_2 in Figure 13.

At the urban centre measurement site, we see a similar pattern in the peak periods for all pollutants measured; and there is no clear trend apparent from these time series plots that relates to the significant reduction in traffic activity that occurred from March 16th and March 23rd.

Similar to the NO_2 calendar plots at the roadside measurement sites, the highest daily average NO_2 concentrations measured at Southampton Centre during the lockdown period were measured on the same days when in general, low winds speeds were observed and dispersion of nearby emissions was likely to be poor.

Figure 12: Southampton Centre AURN - Time series of (provisional) measured NO_2, PM_{10} and $PM_{2.5}$ hourly mean concentrations (µg.m-3) during lock-down period 16th March to 15th May 2020

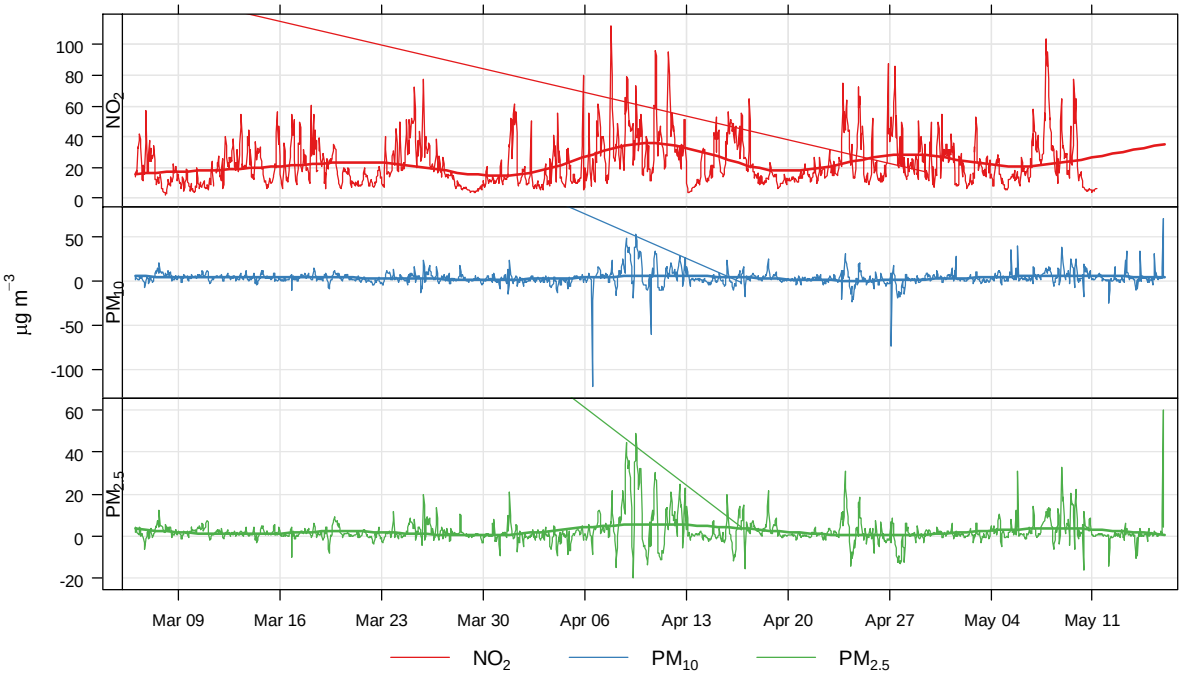
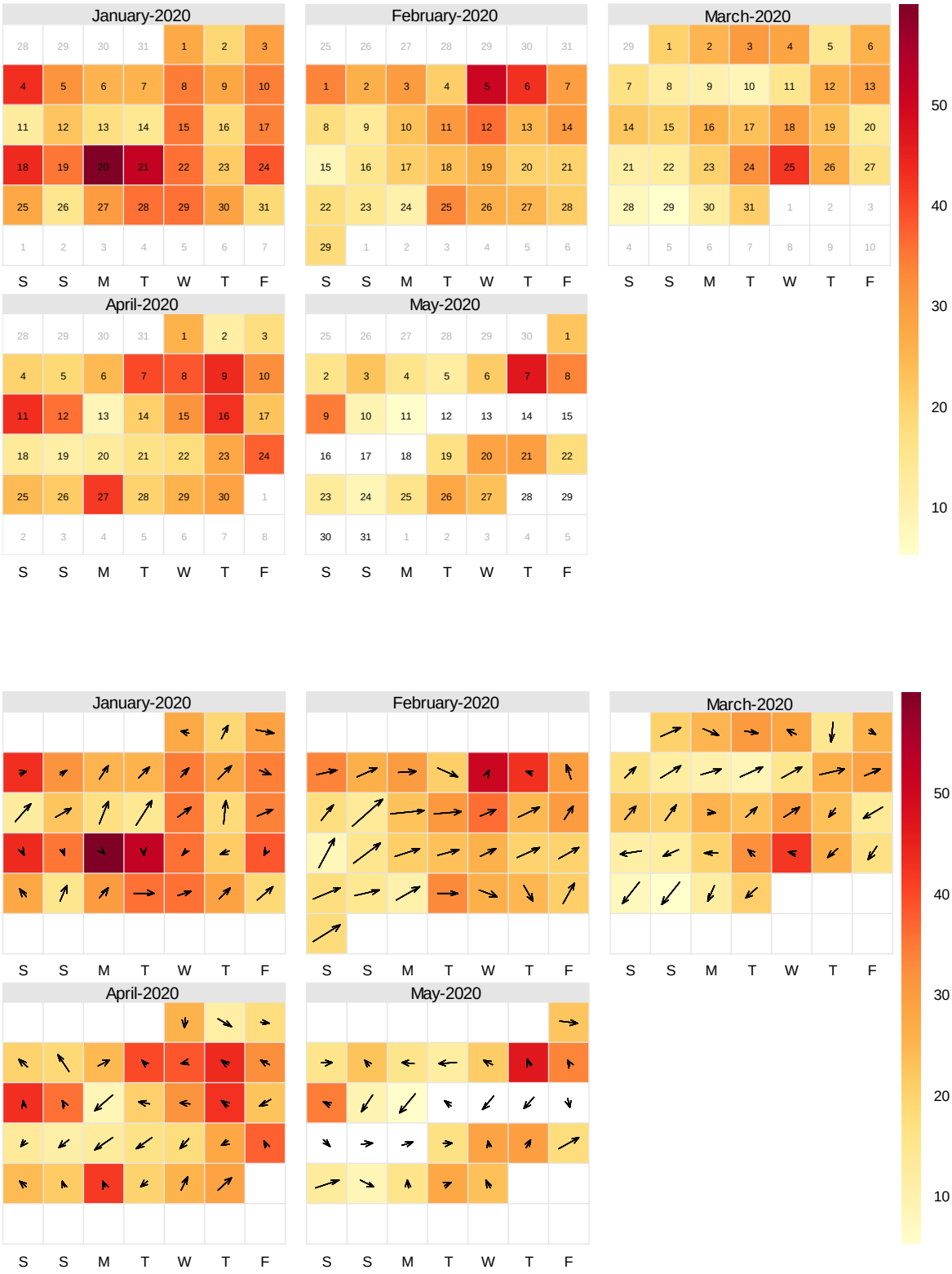


Figure 13: Southampton Centre AURN (urban centre) analyser (provisional) measured NO_2 daily mean calendar plots January to May 2020 (lower plot shows wind direction and speed vectors)



2.2.3 Summary of observations from time-series analysis

The time-series analysis of the data so far indicates:

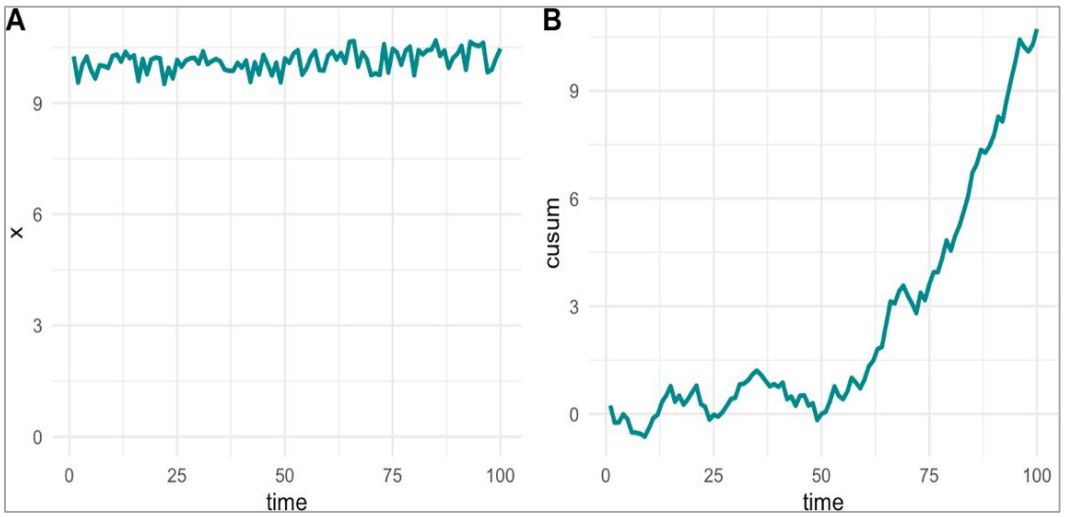
- Daily vehicle journeys decreased significantly from March 16th onwards; and by the beginning of April, weekday counts appear to be around 20 to 30% of the counts observed in early March. Daily counts then slowly increased throughout April and early May.
- There is no clear trend apparent from all of the pollutant measurement time series plots that relates to the significant reduction in traffic activity that occurred from March 16th and March 23rd.
- Peak concentrations of all pollutants were measured at all measurement sites during the same periods in the lock down.
    - April 6th to 12th
    - April 16th
    - April 27th
    - May 7th to 9th
- During each of these periods, low winds speeds were observed, hence dispersion of nearby emissions was likely to be poor.

2.3 Time series vs Cusum plots

In addition to the time series plots presented above, the analysis in this report also considers how measured concentrations deviate from business as usual (BAU) using a **cusum analysis**. A cusum analysis accumulates the deviation in concentration from BAU, which helps to highlight possible **change-points** in time series. While the idea is simple, it is effective in the current context of the lockdown because we are considering deviations from BAU – which should on average be zero if things continue as normal. The approach is useful when the changes are small (perhaps at background sites) and where it is very difficult to see a change from the raw data alone.

As an example, a time series has been generated using random data between 9.5 and 10.5, and halfway through the time series the values increased by adding 0.2, as shown in Figure 14 the original time series is shown by the plot to of the left of the plot. It is not clear from this plot when a change may have occurred. By plotting the cusum of values (section B of the plot)), it can be seen there is a clear change in the slope halfway through the time series. The approximately level gradient shown in the first half of the cusum plot shows that values were neither higher nor lower than the average. The positive (and approximately constant) gradient in the second half of the cusum plot shows there was a change in the mean value, roughly halfway through the time series. In fact, if one takes the change in cusum values from halfway through to the end of the time series (about 10 units in this case), and divide by the number of points (50), a value of 0.2 is calculated, which is the average increase in the second part of the time series.

Figure 14: Example of a cusum analysis.



In (A) a random time series that varies between 9.5 and 10.5 is shown. At t = 50 a value of 0.2 is added to all values between 51 and 100. B shows the cumulative sum plot of the accumulated deviations from the mean

The cusum analysis helps to provide an additional level of inference i.e. not only is a change in concentration calculated, but the timing of that change is considered. Given the Covid-19 situation, one might expect the changes to be closely related to the lockdown date. However, the timing of changes will not be perfect and depend on the random variation that exists in air quality data and the uncertainty of the models used to predict BAU. While not considered here, it is possible to determine whether a change is statistically significant and provide a 95% confidence interval in the timing of the change.

Time series and cusum plots for each of the measurement sites for NOx and NO_2, PM_{10} and $PM_{2.5}$, are presented in turn below. The light blue shaded area of each plot represents the start of social distancing measures coming into force in the UK; the slightly darker blue shaded area represents the lockdown period from 23rd March onward.

2.3.1 NOx and NO_2

General reductions in measured NOx concentrations during the lockdown period when compared with the pre-lockdown period are apparent from the time series plots (Figure 15) at the three roadside measurement sites. This is not as apparent for the Southampton Centre urban background/centre time series.

The cusum plots presented in Figure 16 indicate that measured NOx concentrations did reduce at all of the Southampton measurement sites when compared with the modelled BAU.

For NO_2, as demonstrated in Section 2.2 above, it is much less clear from the time series plots if there is an overall reduction in measured concentrations when the lockdown was implemented. The cusum plots assist with this and similar to NOx, also indicate that measured NO_2 concentrations did reduce at all sites when compared with the modelled BAU.

The decline in measured NO_2 was not as significant as the decline in NOx emissions at the Victoria Road site; this may however be due to some uncertainty in the measurements as the data used for the analysis has not been ratified/quality assured.

Another cusum plot presented in Figure 19 compares the two AURN Southampton sites with other UK AURN NO_2 measurement sites, of which nearby sites have been highlighted. The slope of the line showing the cumulative change in concentrations indicates there was a lower reduction in NO_2 at the Southampton Centre and A33 Roadside sites than at many other sites. The reduction at the Southampton A33 roadside site was more similar to some background or rural sites; this indicates

that measured NO_2 concentrations here didn't follow the same trend as other UK roadside sites during the lockdown.

Figure 15: Measured NOx concentrations - times series February to May 27th 2020

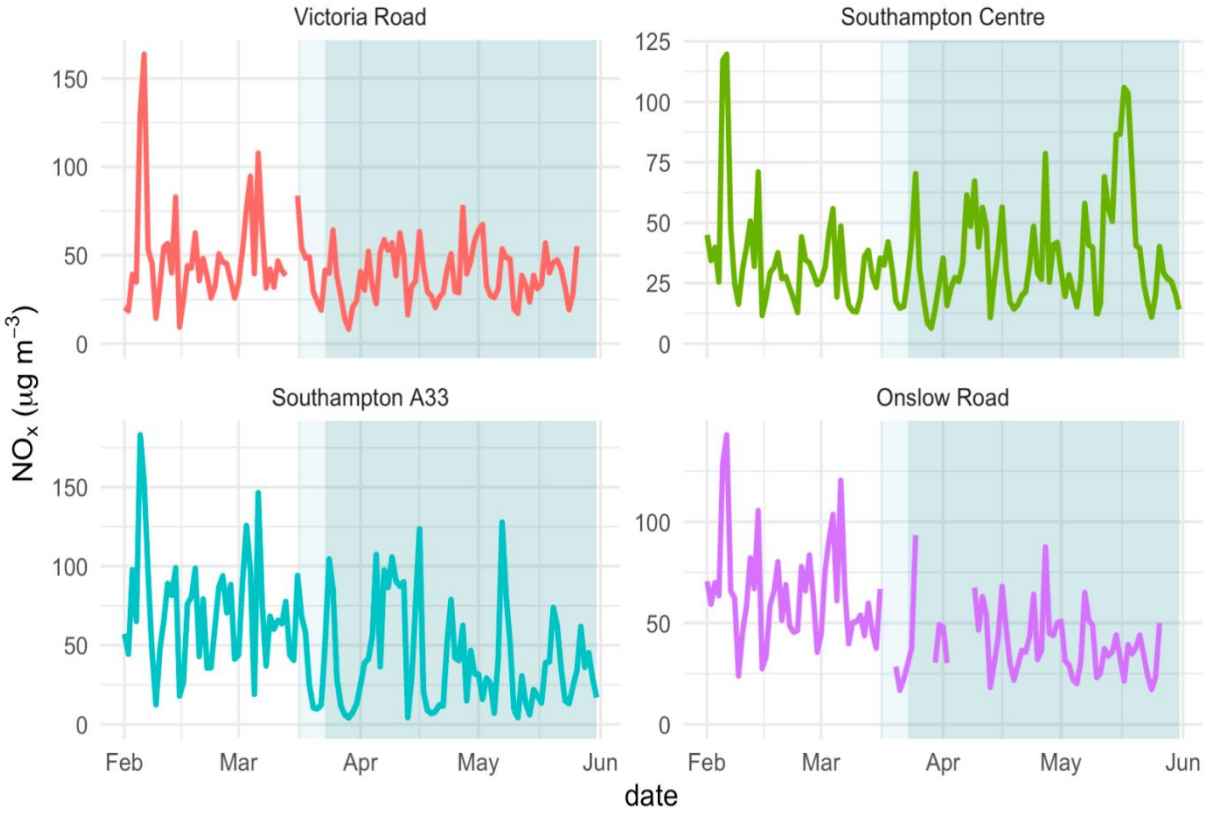


Figure 16: Measured NOx concentrations – cusum analysis

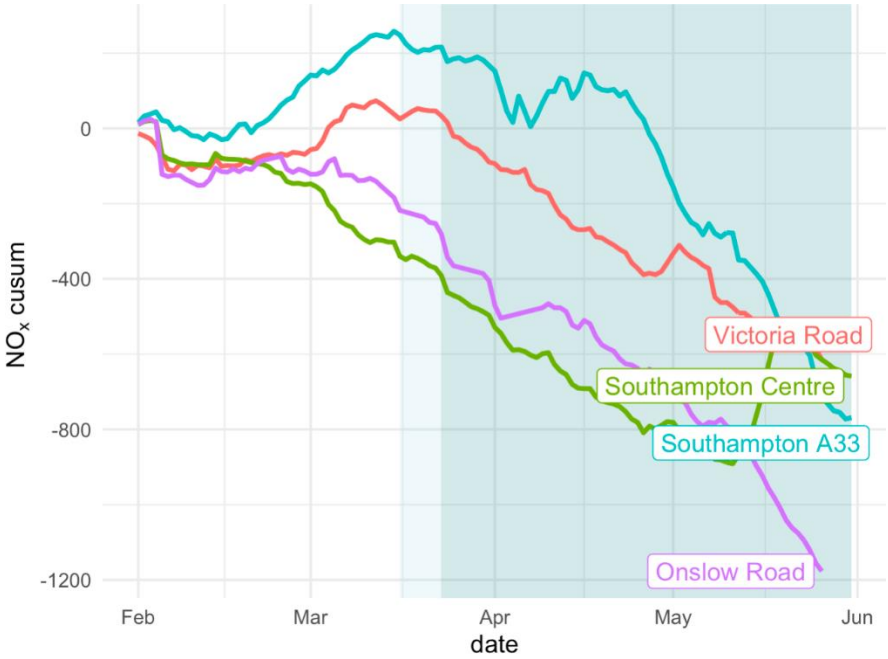


Figure 17: Measured NO_2 concentrations - times series February to May 27th 2020

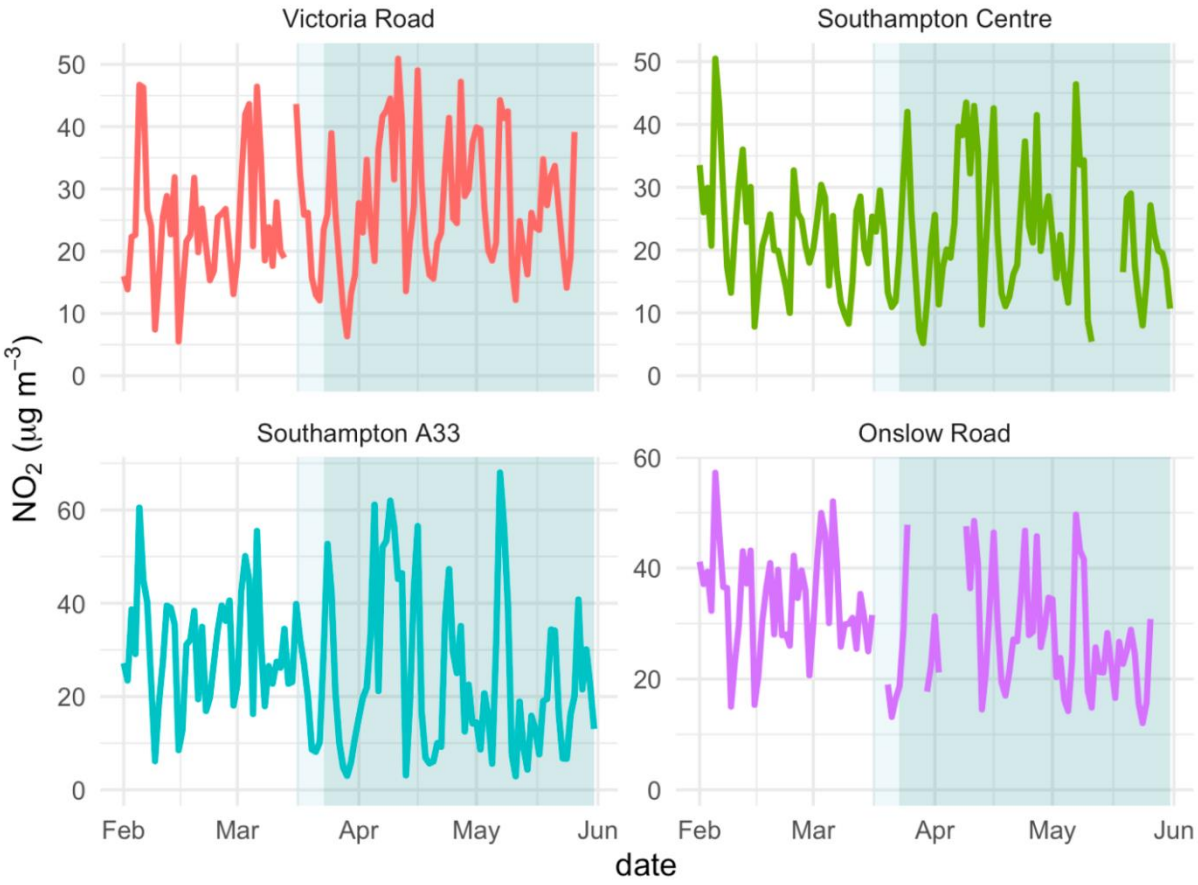


Figure 18: Measured NO_2 concentrations – cusum analysis

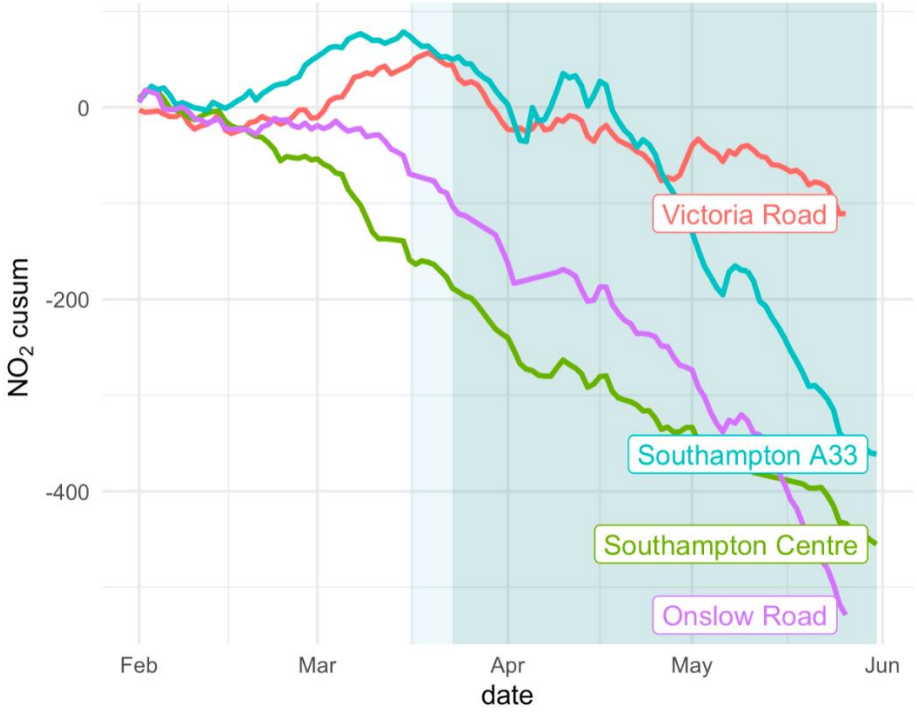
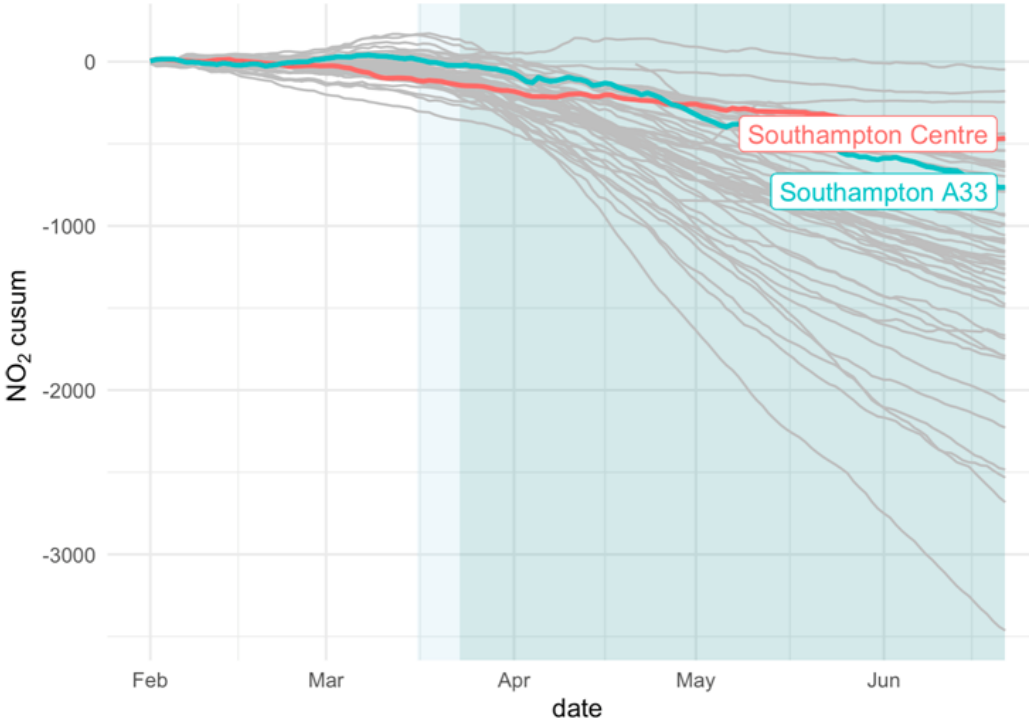


Figure 19: Cusum analysis of measured NO_2 concentrations – Southampton AURN sites vs 60 other UK AURN measurement sites



2.3.1.1 Mean NOx and NO_2 reduction

To put the magnitude of the decrease into perspective, the mean concentrations of NOx and NO_2 for measured during the lockdown vs the modelled business as usual concentrations are presented in Figure 20 and Figure 21 respectively. The percentage change represents the differences between measured and BAU concentrations. In general, the roadside sites show a larger relative decrease compared to the urban background Southampton centre site; indicating the reduction in road traffic activity did reduce measured NOx/NO_2 concentrations. Although not obvious at face value from the time-series analysis and calendar plots, which indicate that fluctuations in measured concentrations seem to be more closely related to the weather conditions than traffic activity; this demonstrates the effectiveness of the cusum analysis.

The mean reduction in measured NO_2 concentrations at the Victoria Road site (1%) is very low when compared with the mean reduction in NOx concentrations (29%); this corresponds with the cusum plots for NO_2 at this site where it appears that NO_2 did not reduce in the same way as the other roadside sites in Southampton. As stated in the introductory 'Limitations' section, this may be due to some uncertainty with the measurements as the data used for the analysis had not been ratified/quality assured when conducting this analysis.

Figure 20: Mean measured NOx reduction during lockdown vs business as usual

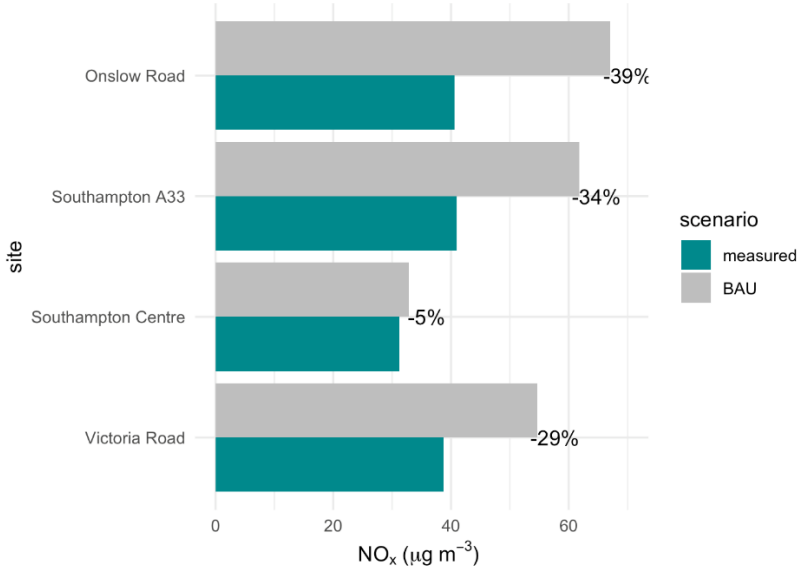
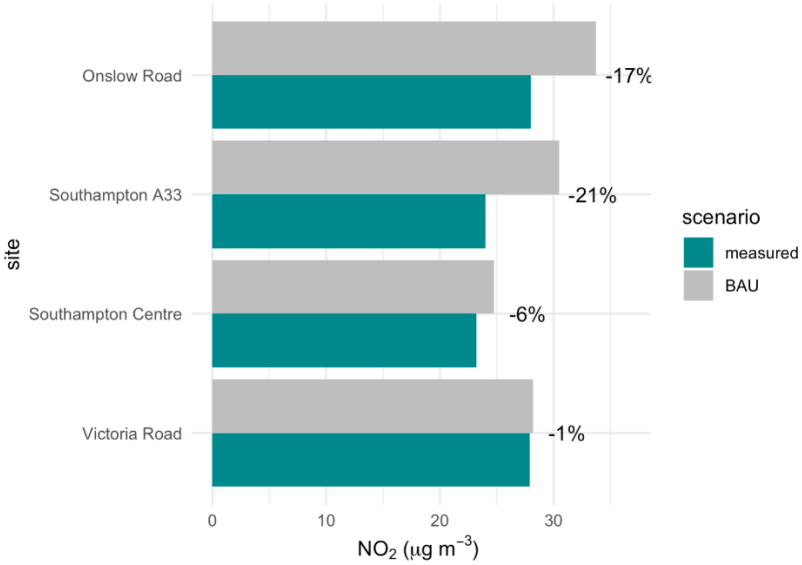


Figure 21: Mean measured NO_2 reduction during lockdown vs business as usual



2.3.2 PM_{10} and $PM_{2.5}$

To understand the likely influence of local sources on PM_{10} and $PM_{2.5}$ concentrations, it was necessary to remove the influence of fluctuations in background particulate concentrations; which tend to make up a large proportion of total measured particulates. The background contribution to particulate concentrations is influenced by regional and transboundary effects, including secondary particulate formation via various atmospheric chemistry processes. The non-background increment for both PM_{10} and $PM_{2.5}$ at the Southampton sites was calculated by subtracting the corresponding hourly mean background concentrations from the Chilbolton rural background site.

It is not clear from the time series plots (Figure 22 and Figure 24) if there is an overall reduction in measured PM_{10} and $PM_{2.5}$ concentrations when the lockdown was implemented.

The PM_{10} cusum plot presented in Figure 23 indicates that measured PM_{10} concentrations appear to increase at the Southampton A33 measurement site when compared with the modelled BAU; whereas at Southampton Centre PM_{10} concentrations are more consistent with BAU but still indicate a slight increase overall.

For $PM_{2.5}$ the cusum plot presented in Figure 25 indicates that $PM_{2.5}$ concentrations declined when compared with BAU in the initial stages of the lockdown; but then increased in a short period from early to mid-April.

Figure 22: Measured PM_{10} concentrations (non-background increment) - times series February to May 27th 2020

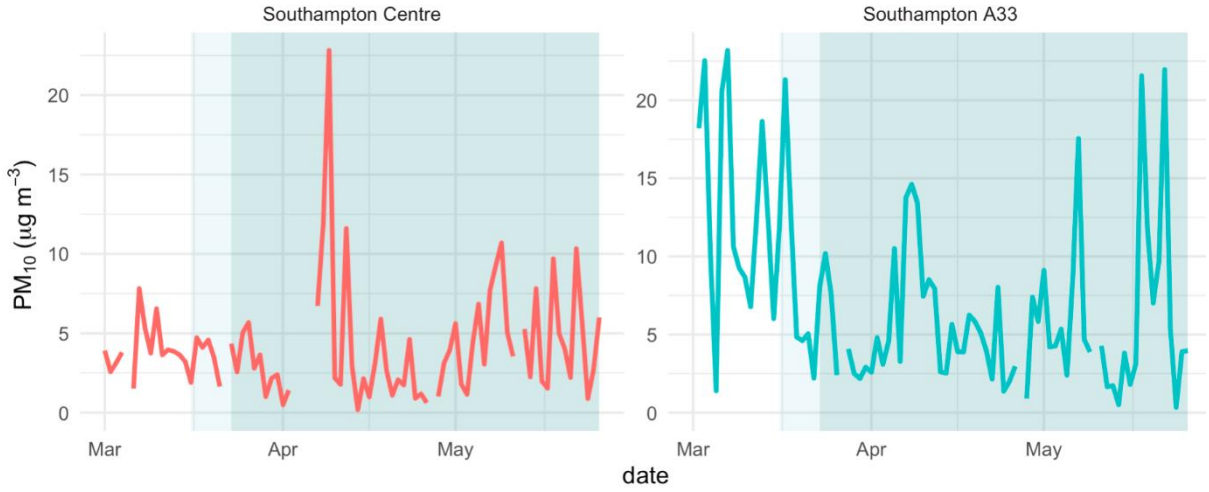


Figure 23: Measured PM_{10} concentrations (non-background increment) – cusum analysis

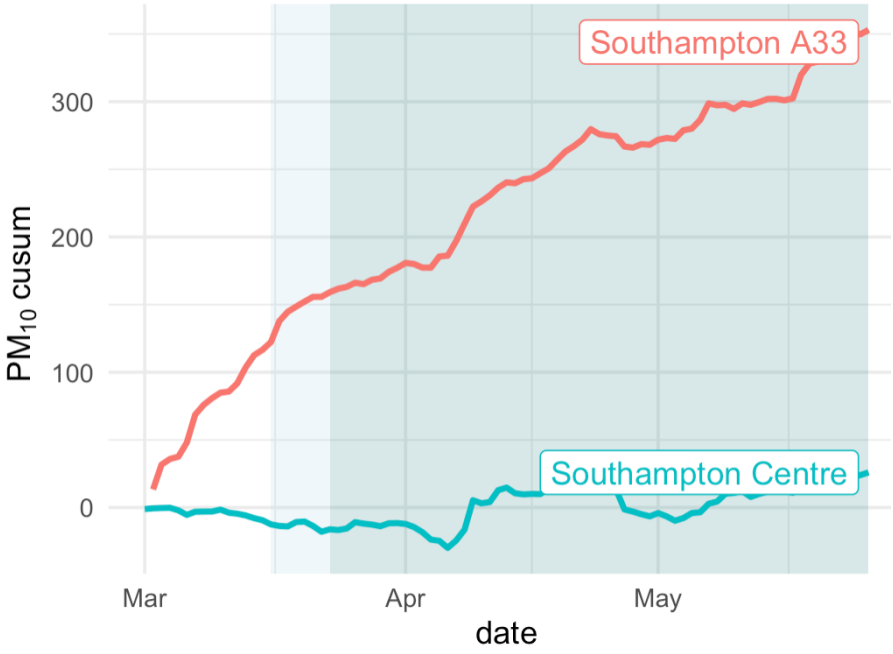


Figure 24: Measured $PM_{2.5}$ concentrations (non-background increment) - times series February to May 27th 2020

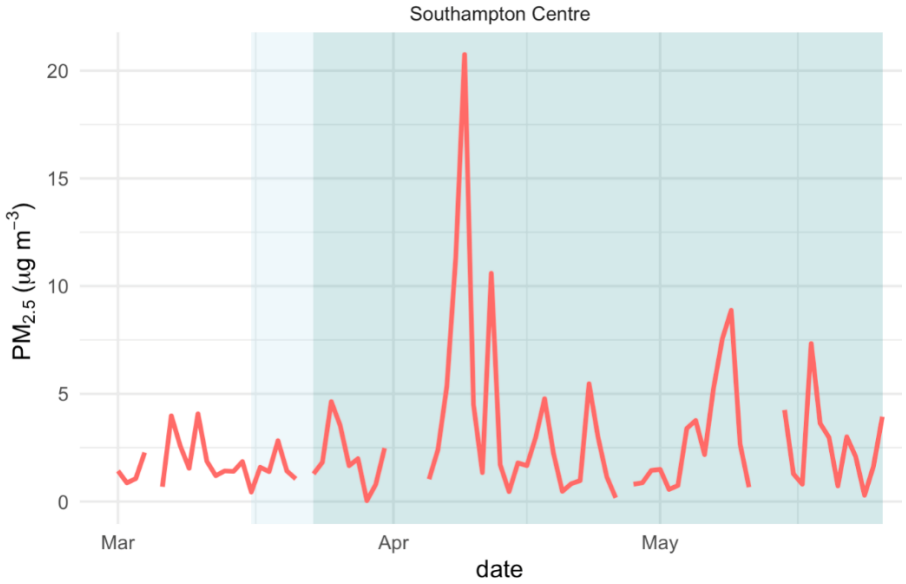
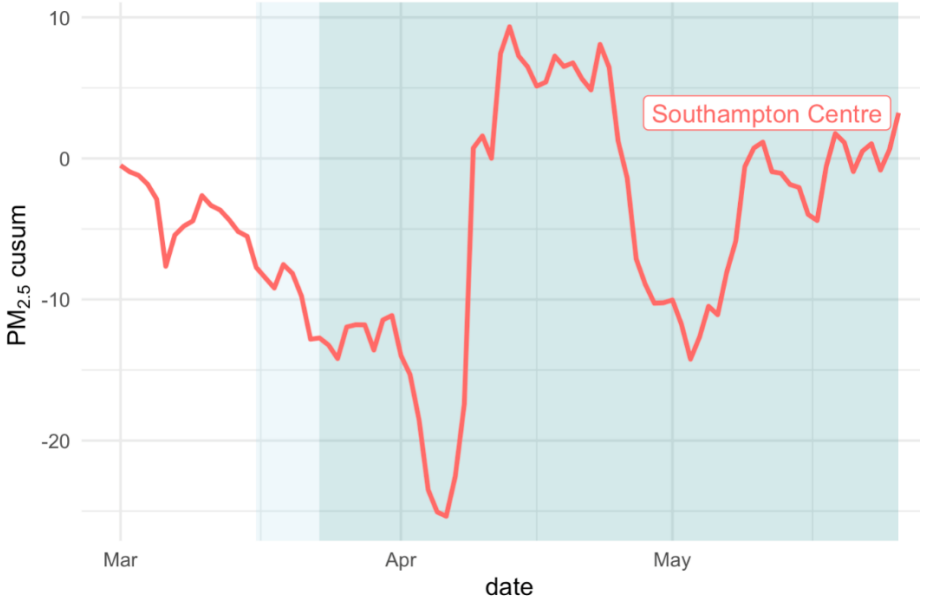


Figure 25: Measured $PM_{2.5}$ concentrations (non-background increment) – cusum analysis



2.3.2.1 Mean PM_{10} and $PM_{2.5}$ reduction

To present the overall change in concentrations compared to BAU in simpler terms, the mean concentrations of PM_{10} and $PM_{2.5}$ after lockdown for measured vs modelled business as usual concentrations are presented below.

At all sites the cusum analysis indicates there was an increase in measured PM_{10} and $PM_{2.5}$ concentrations.

Figure 26: Mean difference in measured PM_{10} during lockdown vs business as usual

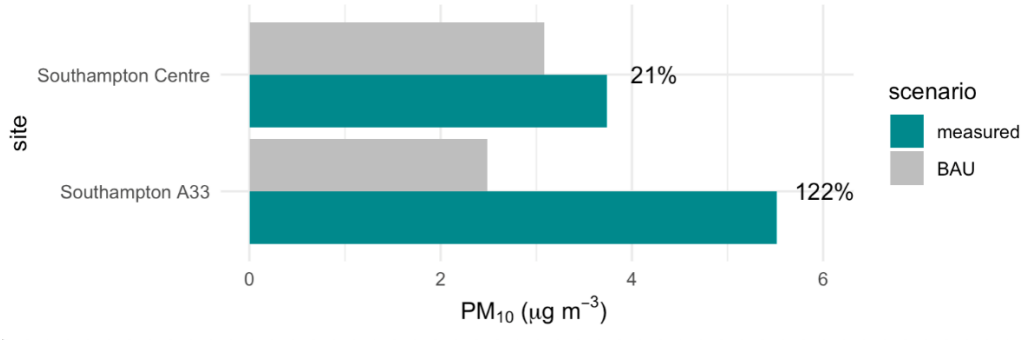
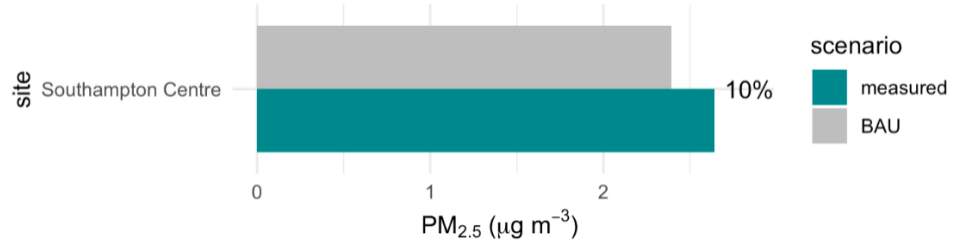


Figure 27: Mean difference in measured $PM_{2.5}$ during lockdown vs business as usual



2.4 Directional analysis – Polar plots

The openair polarPlot function plots a bivariate polar plot whereby concentrations are presented as varying by wind speed and wind direction. This analysis is useful when considering the potential direction of pollutant sources and other factors that may affect dispersion.

PolarMaps have also been produced to show the polar plots superimposed on a leaflet Open Street Map web interface at the location of each air quality measurement site. This helps to provide some additional context regarding the direction of potential pollutant sources relative to each measurement site. We reproduce a high level image of the Polar map outputs in this report; and also provide html files that can be viewed using a web browser. When viewing the html files and connected to the internet, the user can use the typical zoom and pan functionality of the web map interface when viewing the polar plots.

2.4.1 NOx and NO_2

To provide a reasonable indication of a typical year, initially we present polar plots for NOx and NO_2 during all of 2019 (Figure 28 and Figure 29); followed by plots during the 2020 pre-lockdown period, then during the lock-down period.

High level Polar map outputs are also presented in Appendix 1; which we recommend are examined in more detail using the html files supplied along with this report (please view using a web browser).

The NOx and NO_2 polar plots for all of 2019 indicate that:

- At the Southampton A33 site – the highest NO_2 concentrations are typically measured when the wind is from a south easterly direction. This corresponds with a direction roughly perpendicular to the route of the A33 which is likely to be the main source of NOx and NO_2 at this roadside measurement site i.e. during south easterly winds emissions are blown straight along the road towards the analyser.
- At the Onslow Road measurement site which is located a few metres east of Onslow Rd in an open area next to a car park; NO_2 concentrations appear to be at a maximum when the wind is coming from the south west or the north. Maximum concentrations seem to correspond with the location of the analyser relative to the road and hence traffic emissions; and the nearby junction to the southwest; some re-circulation effects during westerly winds may also be apparent here as there is a continuous row of buildings on the opposite side of the road from the analyser.
- At Victoria Road, the analyser is located close to a building façade facing north east. Measured NO_2 concentrations are at a maximum when the wind is coming from the direction of Victoria Rd i.e. south east or from the south west. This could indicate either re-circulation is occurring when the wind from the south west blows over the building façade, or there is another source of NO_2 to the south west of the analyser location.
- At the Southampton Centre AURN site, there is no clear direction for which the highest NO_2 concentrations are measured, the minimum concentrations are measured when the wind blows from a north westerly direction.

During the pre-lockdown period in 2020 the polar plots indicate that NO_2 concentrations measured during various wind speeds and directions broadly correspond with what was observed in 2019 at all of the roadside measurement sites i.e. nothing unusual happened.

During the lock-down period the polar plots indicate:

- At the Southampton A33 site – the highest NO_2 concentrations were still typically measured when the wind is from a south easterly direction throughout the range of low to high wind speeds observed. The correlation between wind direction and the highest measured concentrations corresponds with what was observed during 2019 and the pre-lockdown period. The polar plot indicates that road traffic emissions from the A33 were likely to have been the predominant source of NO_2 at this measurement site during the lock-down period. The polar plot could also indicate that there was another source of NO_2 emissions to the south east but there is no definitive evidence of this.

- Similarly, at Onslow Road; the maximum NO_2 concentrations during the lock down were measured when the wind was from a south westerly direction i.e. towards the junction at the southern end of the road. Compared to the 2019 and pre-lockdown plots, the influence of emissions to the north and west are not as apparent at Onslow Road. This may reflect the reduction in overall traffic flows and hence reduction in traffic queueing on the southbound carriageway of Onslow Road immediately adjacent to the analyser while waiting for the traffic lights to change.
- At Victoria Road there appears to be a correlation between westerly winds and the highest NO_2 concentrations measured during the lockdown period. As discussed above this could be attributable to re-circulation of road traffic emissions from Victoria Road occurring when the wind from the south west blows over the building façade. However, in this case as measured NO_2 concentrations seem relatively high when there is a wind from the west, but there is no clear indication of elevated concentrations when the wind was from an easterly direction; i.e. emissions from road traffic on Victoria Road should be apparent in these conditions. This may provide evidence that there was another source of NO_2 to the south west of the Victoria Road analyser during the lock down period.

Figure 28: NOx polar plot - Southampton 2019 (all year)

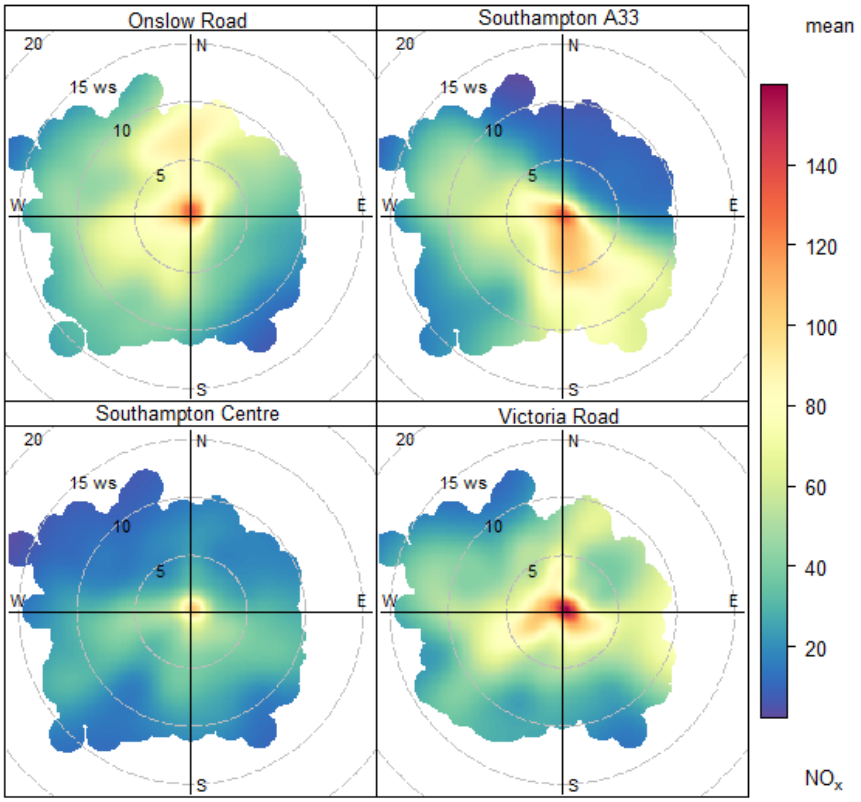


Figure 29: NO_2 polar plot - Southampton 2019 (all year)

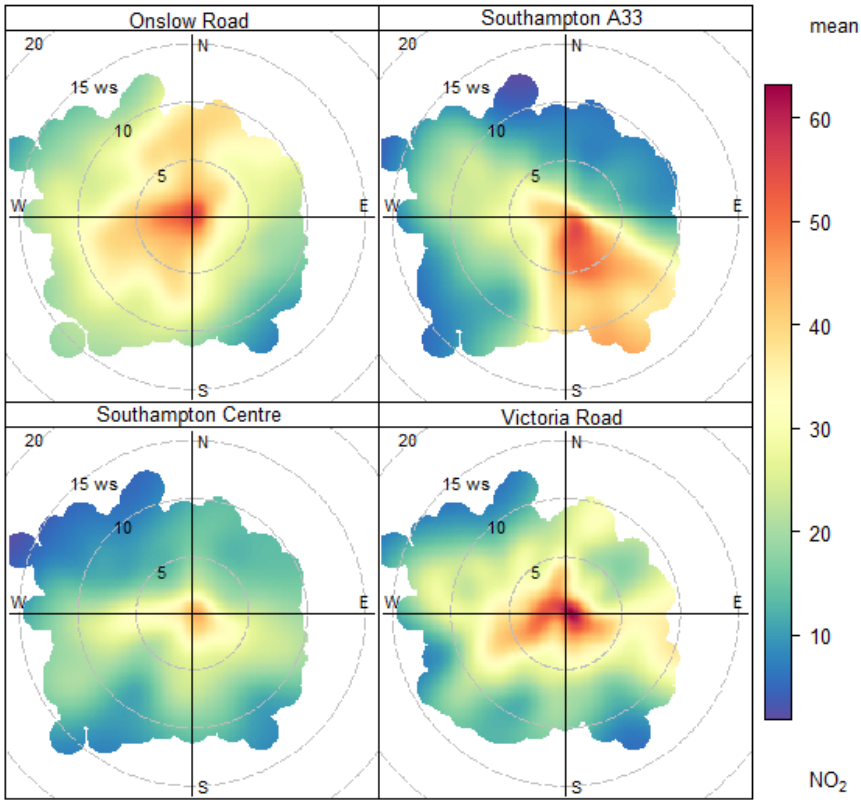


Figure 30: NOx polar plot - Southampton 2020 pre-lockdown period (1st Jan to 20th Mar 2020)

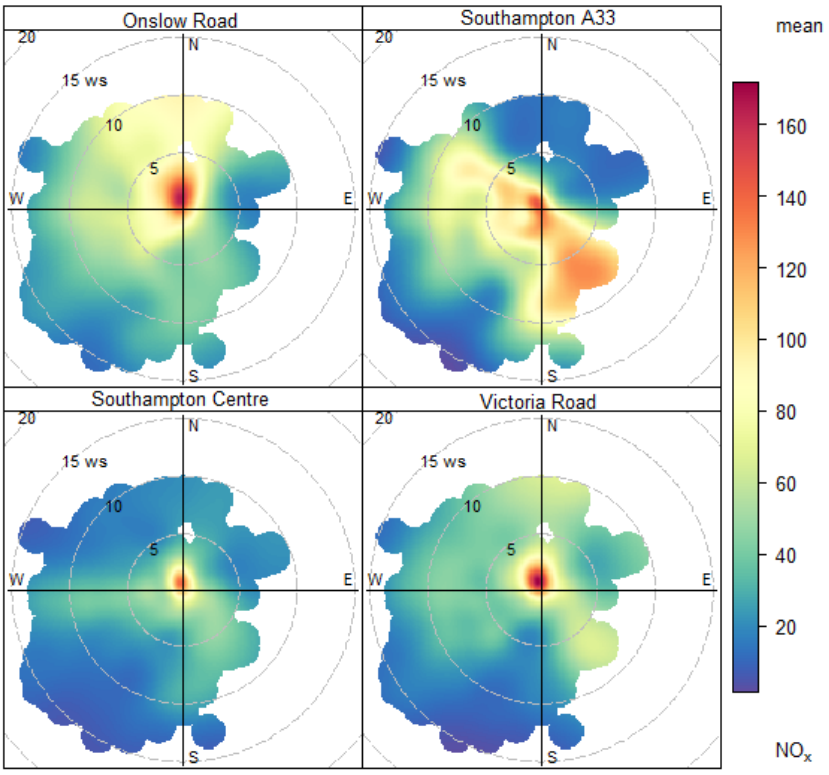


Figure 31: NO_2 polar plot - Southampton 2020 pre-lockdown period (1st Jan to 20th Mar 2020)

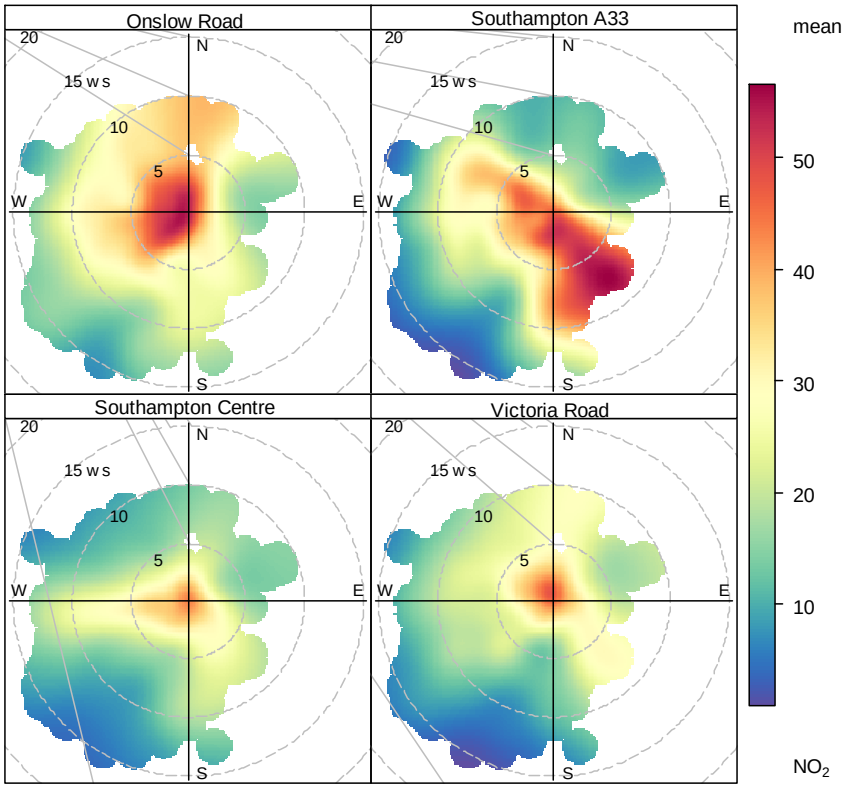


Figure 32: NOx polar plot - Southampton during lockdown period (23rd March to 10th May 2020)

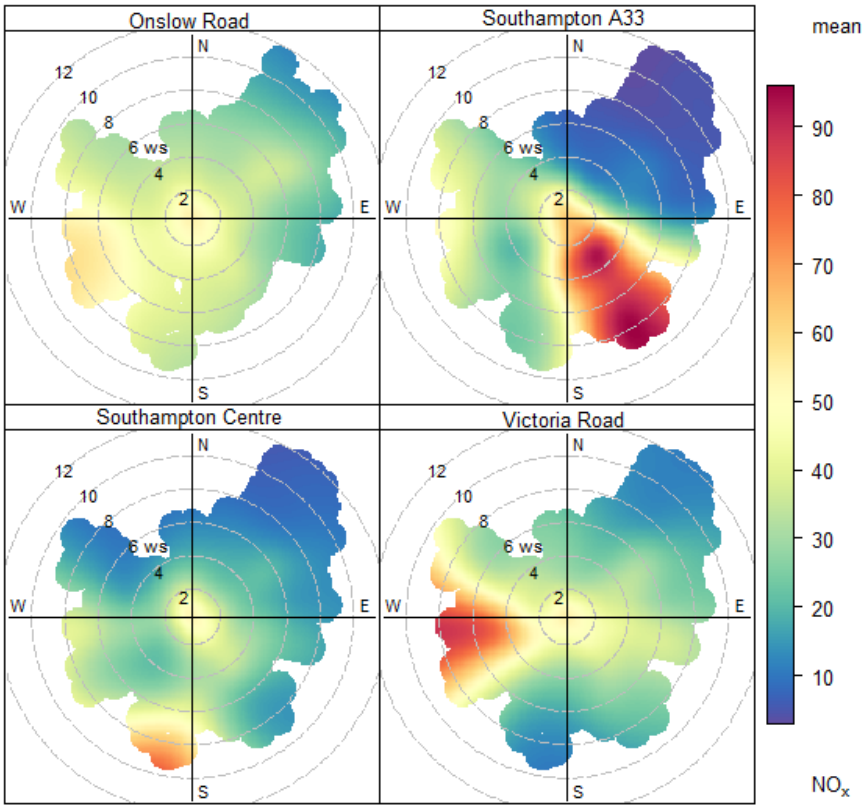
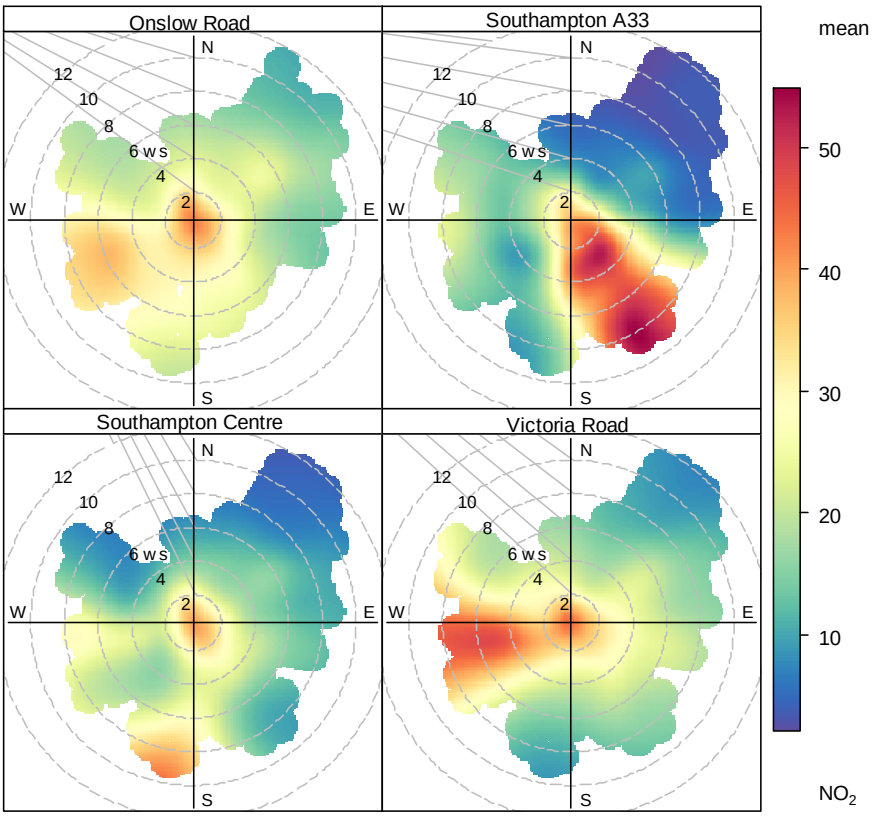


Figure 33: NO_2 polar plot - Southampton during lockdown period (23rd March to 10th May 2020)



2.4.2 PM_{10} and $PM_{2.5}$

PM_{10} is measured at the Southampton A33 (roadside) AURN site and the Southampton Centre (urban centre/background) AURN site. $PM_{2.5}$ is measured at the Southampton Centre site only.

Polar plots representing PM_{10} and $PM_{2.5}$ measurements during all of 2019 are presented here; followed by plots during the 2020 pre-lockdown period, then during the lock-down period. As with the time series and cusum analysis, the background component of PM_{10} and $PM_{2.5}$ has been discounted before running the polarPlot function in openair. This aims to provide information regarding localised sources rather than regional or transboundary fluctuations in fine particulate concentrations.

High level Polar map outputs are also presented in Appendix 1; which we recommend are examined in more detail using the html files supplied along with this report (please view using a web browser).

The polar plots for all of 2019 indicate:

- There is a dominant source of PM_{10} at both measurement sites when strong south westerly winds are observed. As Southampton is on the coast this may be attributable to natural sources e.g. sea salt particles formed during choppy sea conditions; or saltation in the estuary flats. There is no other clear potential anthropogenic local source of fine particulates south west of both measurement sites.
- At the A33 measurement site, similar to NO_2, some of the maximum PM_{10} concentrations are measured when the wind is from a south easterly direction which is roughly perpendicular to the route of the A33; which is likely to be the main source of exhaust and non-exhaust particulate emissions from road traffic at this site i.e. during south easterly winds vehicle emissions are blown straight along the road towards the analyser.
- There is no clear indication of $PM_{2.5}$ emissions from any direction influencing measurements at the Southampton Centre site. Throughout 2019 the highest $PM_{2.5}$ concentrations were measured during very low wind speeds.

During the pre-lockdown period in 2020 the polar plots indicate that

- The maximum PM_{10} and $PM_{2.5}$ concentrations were measured at Southampton Centre during strong south westerly winds; as per comments above this may indicate natural sources of particulates. There are however other potential man-made sources of PM directly south west of the Southampton Centre site
- Particulate emissions from the section of the A33 north west of the A33 measurement site are apparent during winds from that direction.

During the lock-down period the polar plots indicate:

- At the Southampton A33 site – some of the highest PM_{10} concentrations were measured when the wind is from a south easterly direction throughout the range of low to high wind speeds observed. Similar to NO_2 there is a correlation between wind direction and the route of the A33; this was also apparent from the polar plots representing all of 2019 and the pre-lockdown period.
- At the Southampton A33 site during the lock down, the polar plots also show higher PM_{10} concentrations being measured during strong south westerly winds.
- The polar plot indicates that road traffic emissions from the A33 are likely to be the predominant source of PM_{10} at this measurement site during the lock-down period. This does not mean that there are definitely no other sources of particulate matter further south west of the site than the road that are influencing measured concentrations; but it is what we would expect to see at a roadside site with that road alignment.
- At the Southampton Centre site, the $PM_{2.5}$ polar plot during lock down indicates that the maximum concentrations were measured during light to moderate speed south easterly winds. This is not apparent in the 'all of 2019' or pre-lockdown polar plots; so could indicate a localised source of fine particulates that was present to the south east of the town centre during the lockdown period.

Figure 34: PM_{10} polar plot - Southampton 2019 (all year)

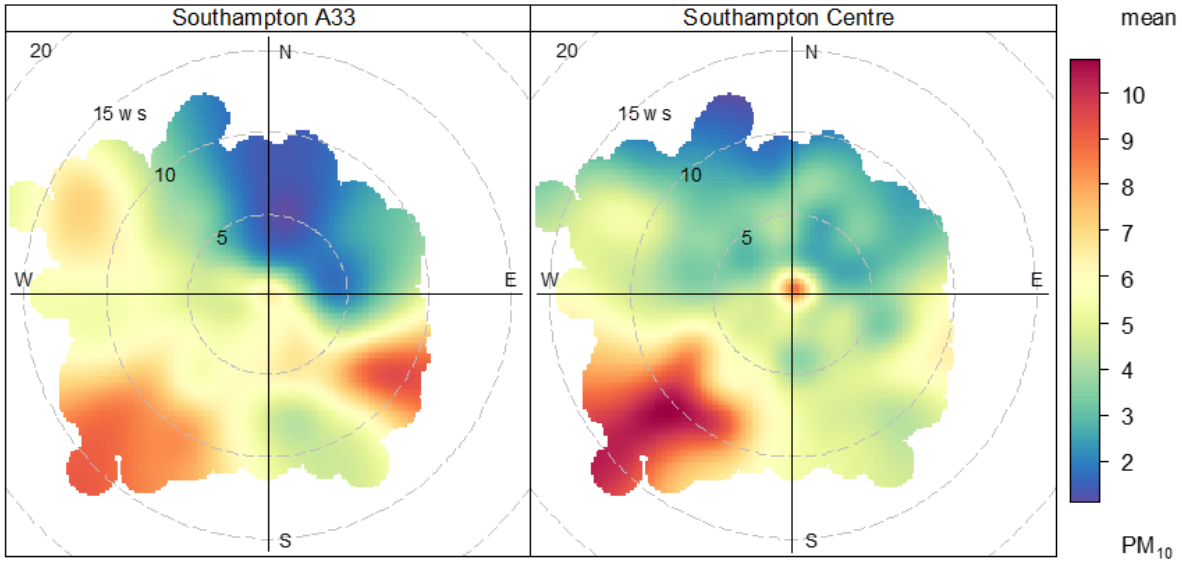


Figure 35: $PM_{2.5}$ polar plot - Southampton Centre 2019 (all year)

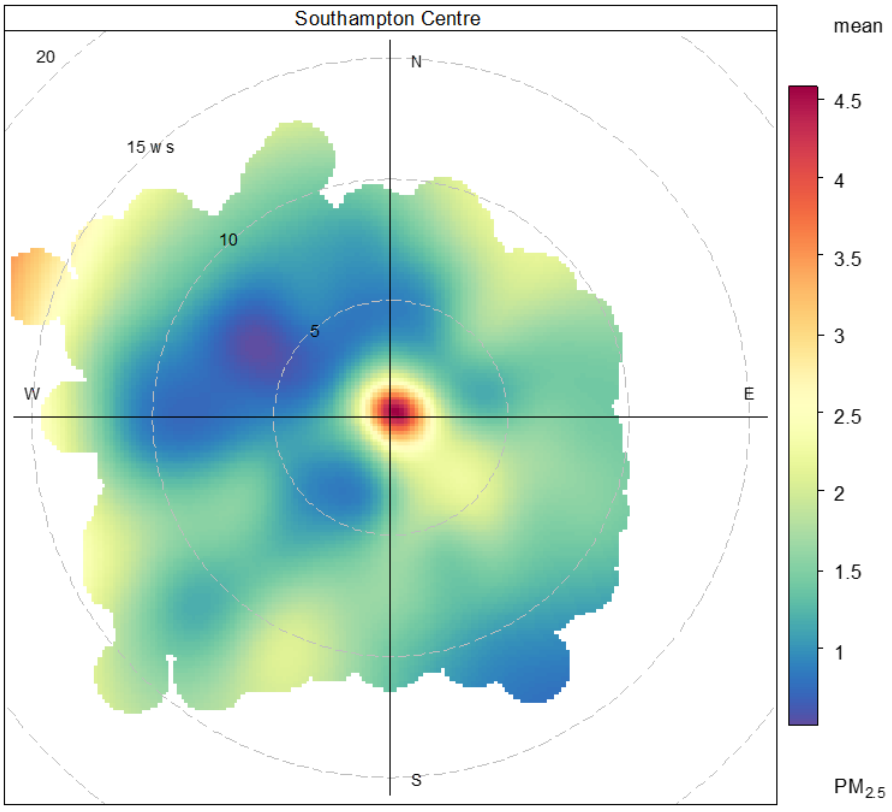


Figure 36: PM_{10} polar plot - Southampton 2020 pre-lockdown period (1st Jan to 20th Mar 2020)

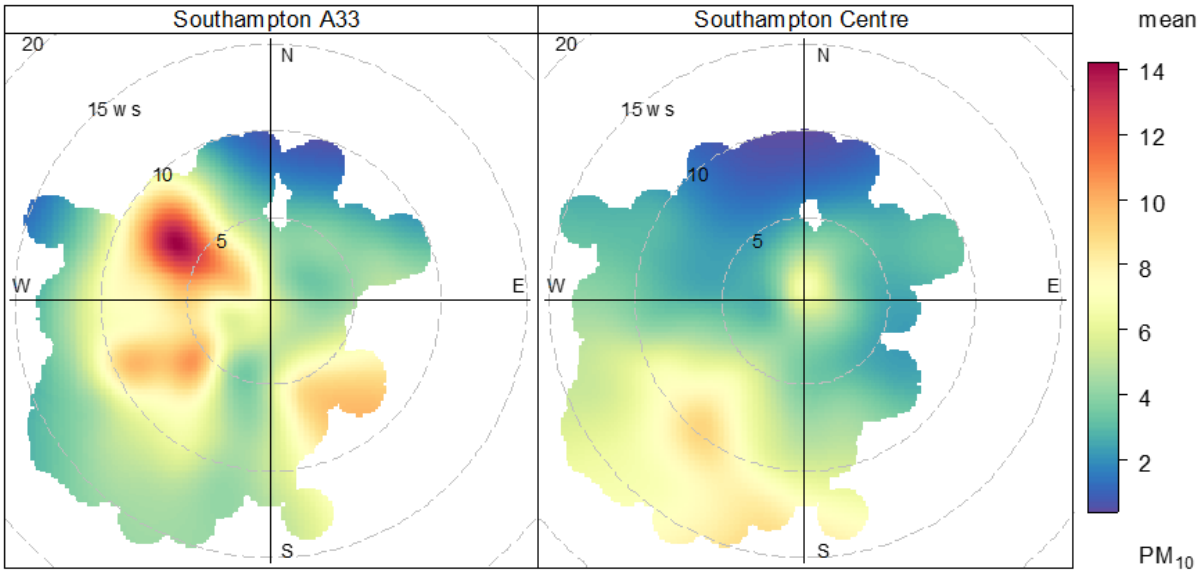


Figure 37: $PM_{2.5}$ polar plot - Southampton Centre 2020 pre-lockdown period (1st Jan to 20th Mar 2020)

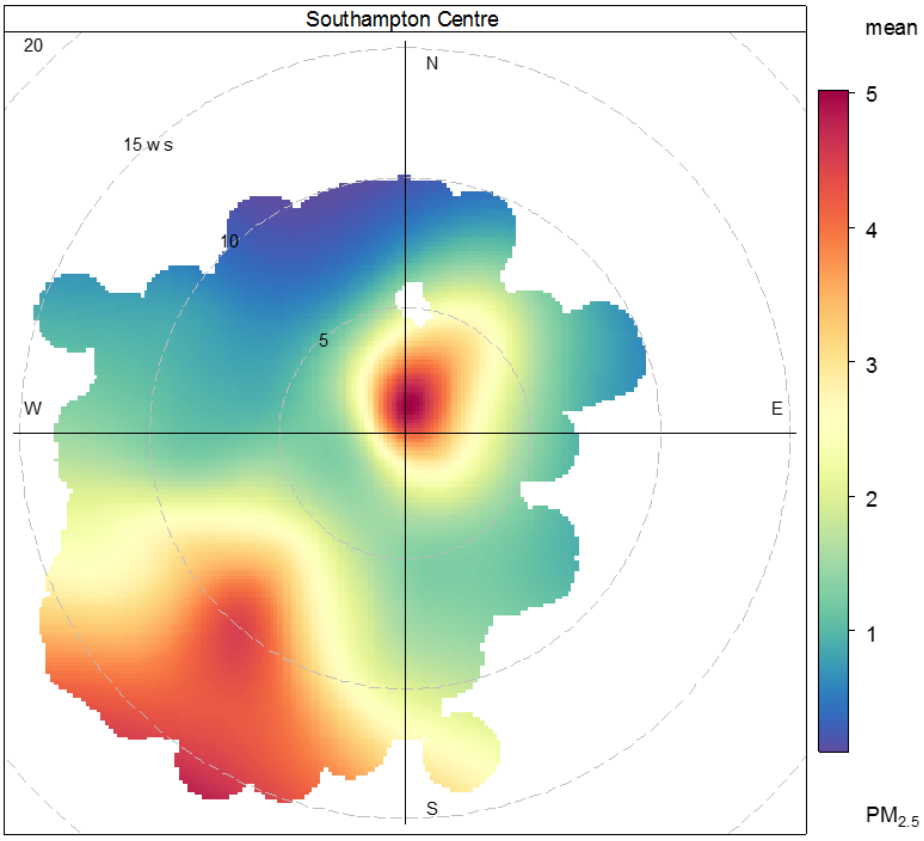


Figure 38: PM_{10} polar plot - Southampton during lockdown period (23rd March to 10th May 2020)

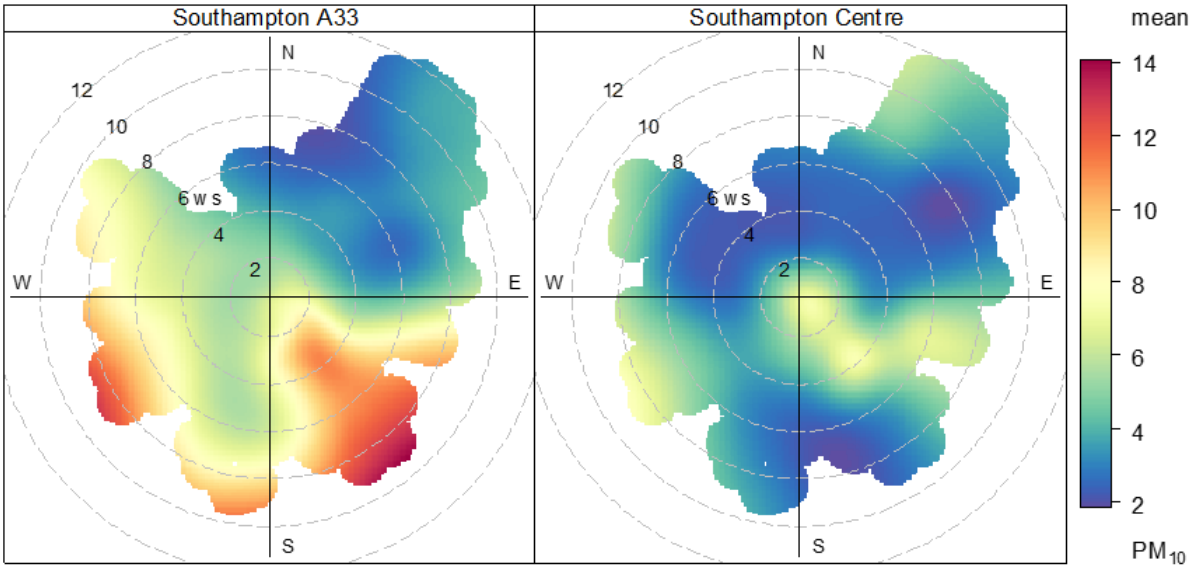
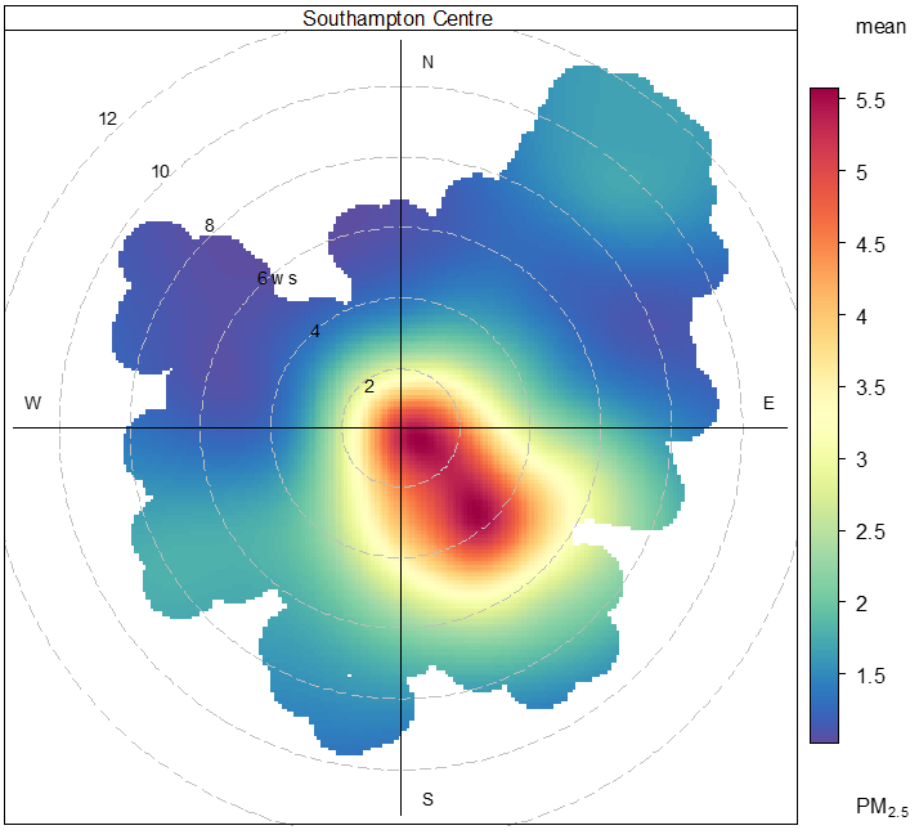


Figure 39: $PM_{2.5}$ polar plot - Southampton during lockdown period (23rd March to 10th May 2020)



3 Summary and conclusions

We have presented various analysis of air quality measurements in Southampton and how they relate to wind direction and speed. The analysis has been conducted using the R package openair and a cumulative sum (cusum) method.

Weather conditions

The analysis includes consideration of weather conditions; which is very important and particularly relevant when comparing pollutant measurements between two distinct time periods - in this case 'pre-lockdown' and 'during-lockdown' conditions. The main observations from examination of wind speed and direction that influence the comparison were:

- South westerly winds were predominant during the pre-lockdown period, whereas north easterly winds were more frequent during the initial days of the lock-down and in May
- The highest south westerly wind speeds occurred during February and early March prior to the lockdown.

Time series analysis

Pollutant measurements at the roadside air quality measurement sites in Southampton have initially been presented as time-series plots in comparison with automatic traffic count (ATC) data from the nearest relevant location with available data. These time-series plot are further supplemented using calendar plots showing daily average pollutant concentrations, wind speed and direction.

It is clear from the time-series plots of road traffic activity that the daily number of vehicles in Southampton decreased significantly from March 16th onwards; and by the beginning of April, weekday counts appear to be around 20 to 30% of the counts observed in early March. Daily counts then slowly increase throughout April and early May to approximately 30 to 45% of the pre-lock down observations.

At roadside locations NOx, PM_{10} and $PM_{2.5}$ concentrations are directly related to localised emissions from vehicles. Intuitively, it would be reasonable to expect to see reduced local traffic activity directly lead to reduced measured pollutant concentrations. The NOx, NO_2 and PM_{10} time-series covering the lock-down period do not however show a decrease in measured pollutant concentrations. The peak concentrations for all pollutants appear to have been measured during the week in April (6th to 13th) when traffic activity was at its lowest.

It is however important to consider the influence of weather conditions. The peak concentrations measured during that week in April also coincide with low average wind speeds; which at the Southampton A33 site were in a direction roughly perpendicular to the route of the A33 i.e. from the south east.

Examination of the calendar plots at all roadside measurement sites in Southampton indicate that, in general, the highest NO_2 concentrations measured in 2020 so far, are on days when the average wind speed was low i.e. dispersion of emissions was poor. Peak concentrations of all pollutants were measured at all measurement sites during the same periods in the lock down.

In summary, the time-series analysis did not demonstrate a clear downward trend in pollutant measurement that corresponded with the significant reduction in traffic activity that occurred from March 16th and March 23rd. The maximum measured pollutant concentrations appear to be more related to wind speed and direction.

Time series vs cusum plots

In addition to the time series plots described above, the analysis then went on to consider how measured concentrations deviate from business as usual (BAU) using a cumulative sum (cusum) analysis. The cusum analysis accumulates the deviation in concentration from BAU, which helps to highlight possible change-points in time series. This aims to remove the effect of weather fluctuations from the analysis to provide a better indication of the effect of a change in emissions on measured pollutant concentrations.

The cusum plots presented indicate that both measured NOx and NO_2 concentrations did reduce at all of the Southampton measurement sites when compared with the modelled BAU.

Another cusum plot, which compares the two Southampton AURN measurement sites with other UK AURN sites for NO_2, indicates there was a lower reduction in NO_2 at the Southampton sites than at the bulk of other UK sites. The reduction was more similar to what was observed at some background or rural sites; which could indicate that the Southampton sites did behave differently than other UK roadside sites during the lockdown.

Although not obvious from the time-series analysis and calendar plots, which indicated that fluctuations in measured concentrations were more closely related to the weather conditions than traffic activity. The cusum analysis does indicate that in general, the roadside sites show a larger relative decrease in NOx/NO_2 concentrations when compared to the urban background Southampton centre site; indicating that the reduction in road traffic activity did reduce measured NOx/NO_2 concentrations when weather effects are discounted.

At all sites the cusum analysis indicates there was an increase in measured PM_{10} and $PM_{2.5}$ concentrations during the lockdown period when compared with BAU. It is not clear if this is attributable to natural or man-made sources; additional more detailed analysis of meteorological conditions during the periods when peak particulate concentrations were measured may provide further insight.

Directional analysis – Polar plots

Polar plots present measured pollutant concentrations varying by wind speed and wind direction. This type of analysis is useful if considering the potential direction of pollutant sources and other factors that may affect dispersion.

To provide a reasonable indication of a typical year initially we present polar plots for each pollutant during all of 2019; followed by plots during the 2020 pre-lockdown period, then during the 2020 lock-down period. We have also provided the plots on polar maps in html file format that can be interactively viewed by the reader using a web browser.

There are various and numerous conclusions from the polar plot analysis described in detail in the respective section of this report. The main highlights are:

- At the Southampton A33 site during the lock down period – the highest NO_2 concentrations were typically measured when the wind is from a south easterly direction throughout the range of low to high wind speeds observed. The correlation between wind direction and the highest measured concentrations corresponds with what was observed during 2019 and the pre-lockdown period. The polar plot indicates that road traffic emissions from the A33 may still have been the predominant source of NO_2 at this measurement site during the lock-down period. The polar plot could also indicate that there was another source of NO_2 emissions to the south east but there is no definitive evidence of this.
- At Victoria Road there appears to be a correlation between westerly winds and the highest NO_2 concentrations measured during the lockdown period. Although re-circulation of road traffic emissions should be considered, this may also provide evidence that there was another source of NO_2 to the south west of the Victoria Road analyser location during the lock down period.
- There is a dominant source of PM_{10} at both the Southampton A33 AURN and Southampton Centre AURN measurement sites when strong south westerly winds are observed. As Southampton is on the coast this may be attributable to natural sources e.g. sea salt particles formed during choppy sea conditions. There is no other clear potential anthropogenic local source of fine particulates south west of both measurement sites.
- At the Southampton Centre site, the $PM_{2.5}$ polar plot during lock down indicates that the maximum concentrations were measured during light to moderate speed south easterly winds. This is not apparent in the ‘all of 2019’ or pre-lockdown polar plots; so could indicate a localised source of fine particulates that was present to the south east of the town centre during the lockdown period.

Overall when trying to relate the various conclusions of the analysis to changes in road traffic and shipping activity; the following points seem relevant:

- Although not obvious from the time-series analysis and calendar plots, which indicated that fluctuations in measured concentrations were more closely related to the weather conditions than traffic activity. The cusum analysis has provided useful information regarding trends for each of the pollutants included when weather effects are discounted; this does indicate a change in local emissions from both road traffic and other activity is apparent in the measurement data.
- Possible more significantly, when compared with other UK AURN sites for NO_2, the cusum analysis indicates that the Southampton sites did behave differently than other UK roadside sites during the lockdown. This could indicate the influence of sources other than road traffic influencing measured pollutant concentrations during this period.
- The directional analysis indicates a correlation between westerly winds and the highest NO_2 concentrations measured during the lockdown period; which may be evidence of a source of NO_2 to the south west of the Victoria Road analyser location during the lock down period.

The conclusions of the analysis should be considered in context with the limitations highlighted in the introduction to the report. There may be some benefit in additional, more detailed, analysis e.g. examination of the likely change in overall NOx and primary NO_2 emissions by examining the daily HGV traffic flows on the A33 during the lockdown; or various additional analysis of shorter time periods within the lockdown when pollutant measurements were at a maximum. We would recommend any additional more detailed analysis is conducted using ratified measurement data.

Appendices

A1 Polar map screen shots

PolarMaps have been produced to show the polar plots superimposed on a leaflet Open Street Map web interface at the location of each air quality measurement site. This helps to provide context regarding the direction of potential pollutant sources relative to each measurement site.

Here, we reproduce a high level screenshot images of the Polar map outputs in this report.

We have also provided html files that can be viewed using a web browser. When viewing the html files and connected to the internet, the user can use the typical zoom and pan functionality of the web map interface to examine the polar plots.

We recommend examining the polar maps in more detail using the html files supplied along with this report (please view using a web browser).

Figure 40: NO_2 polar map- Southampton 2019 (all year)

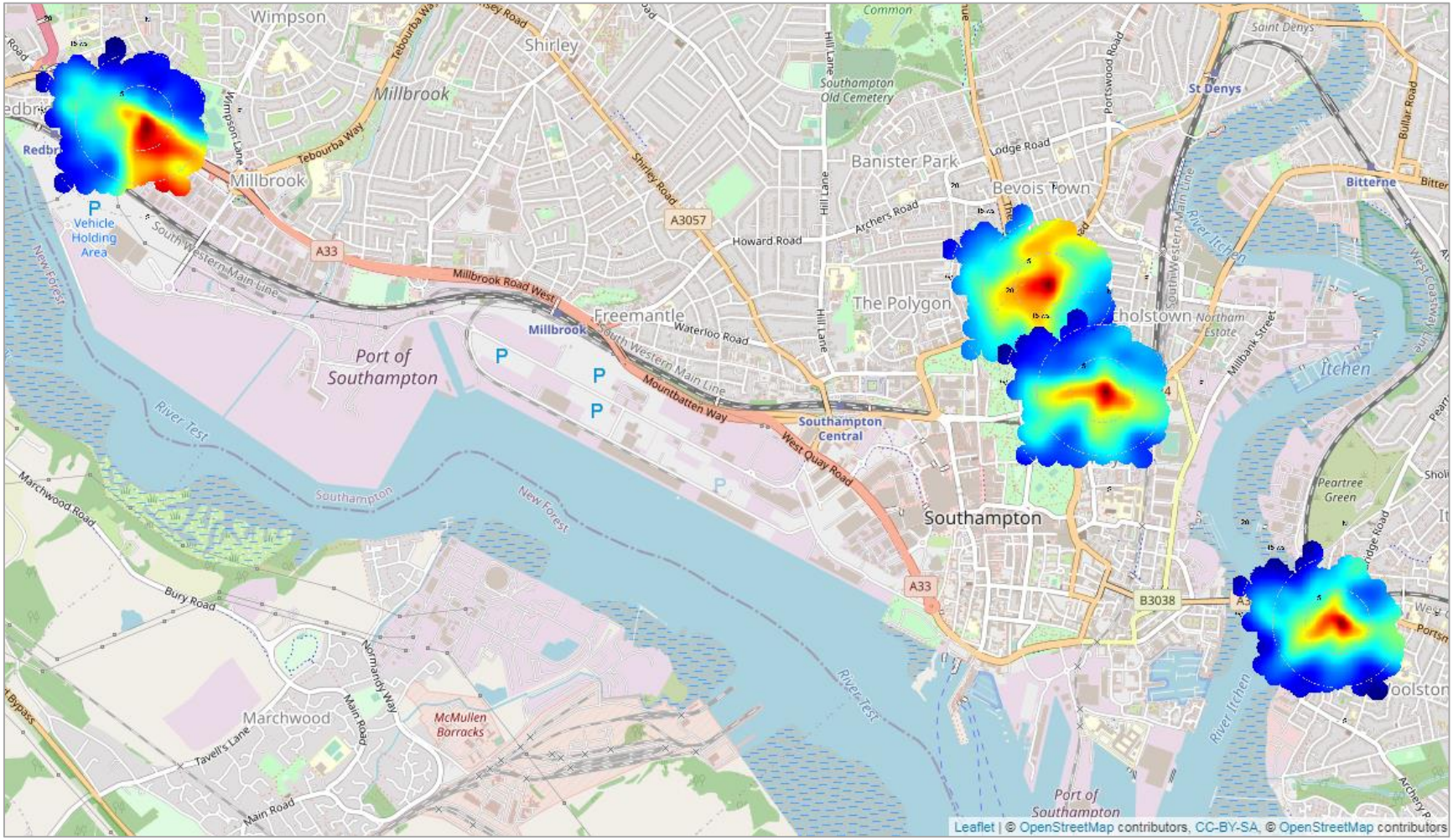


Figure 41: NO_2 polar map - Southampton 2020 pre-lockdown period (1st Jan to 20th Mar 2020)

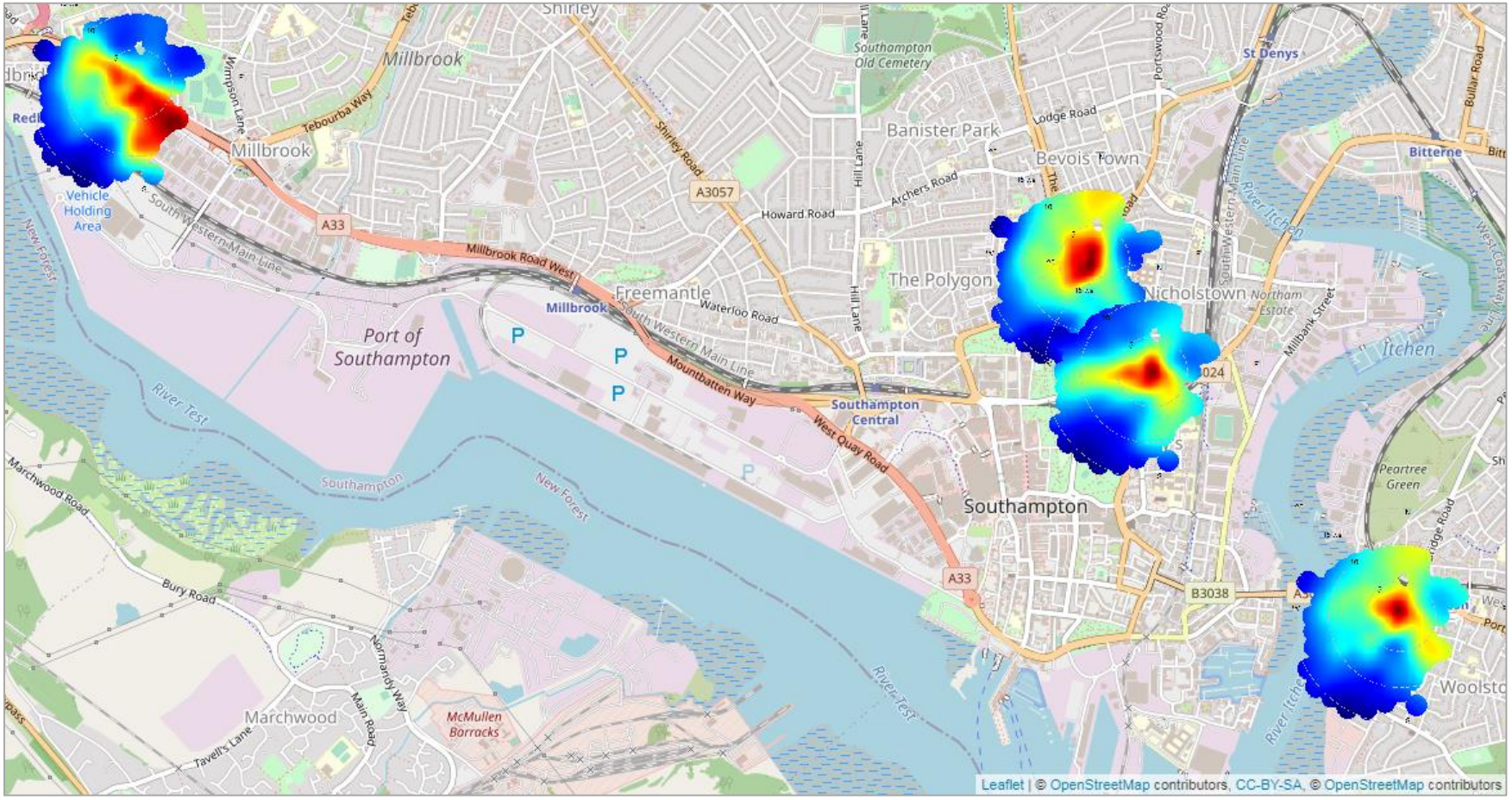


Figure 42: NO_2 polar map - Southampton during lockdown period (23rd March to 10th May 2020)

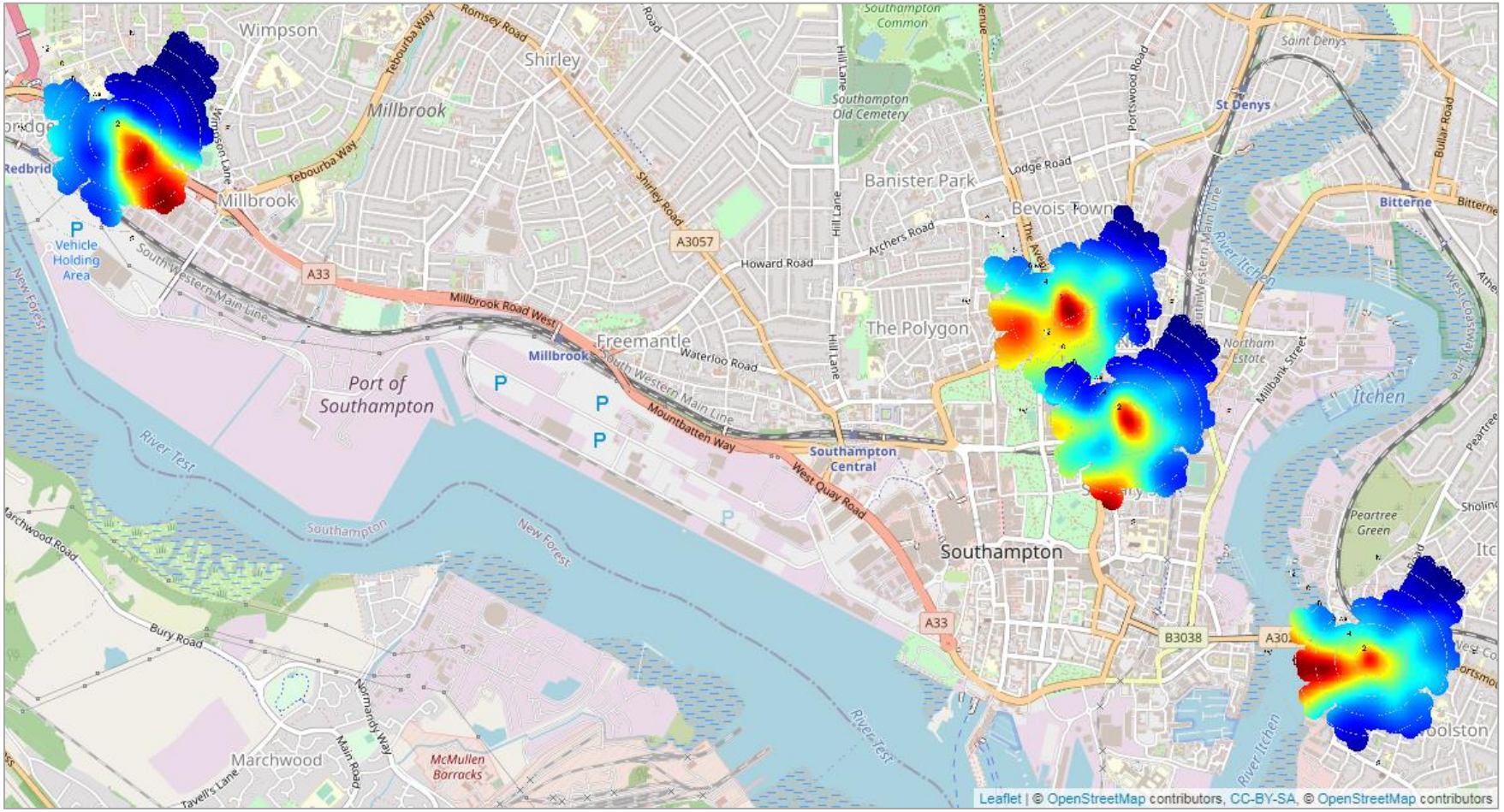


Figure 43: PM_{10} polar map - Southampton 2019 (all year)

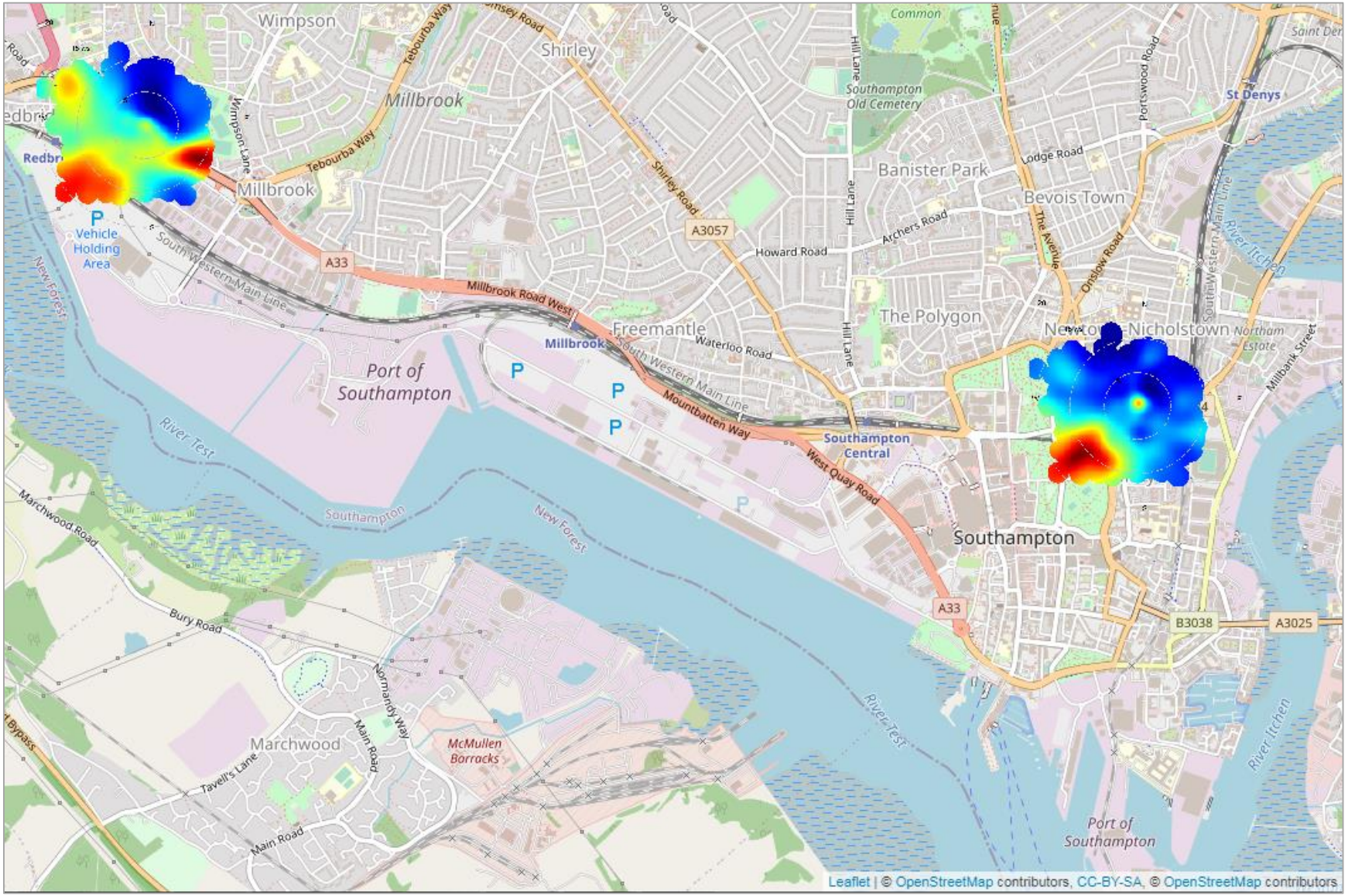


Figure 44: PM_{10} polar map - Southampton 2020 pre-lockdown period (1st Jan to 20th Mar 2020)

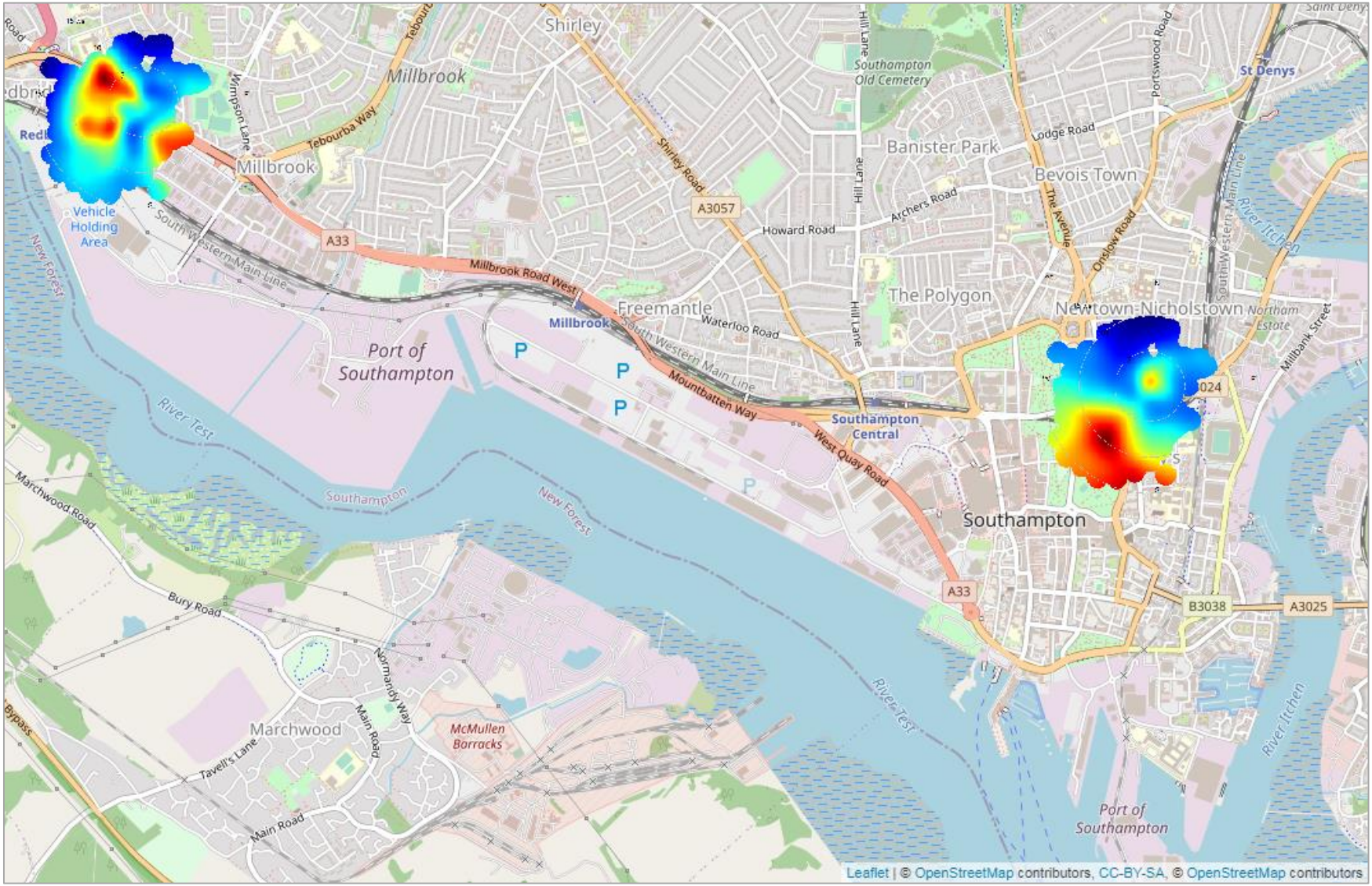


Figure 45: PM_{10} polar map - Southampton during lockdown period (23rd March to 10th May 2020)

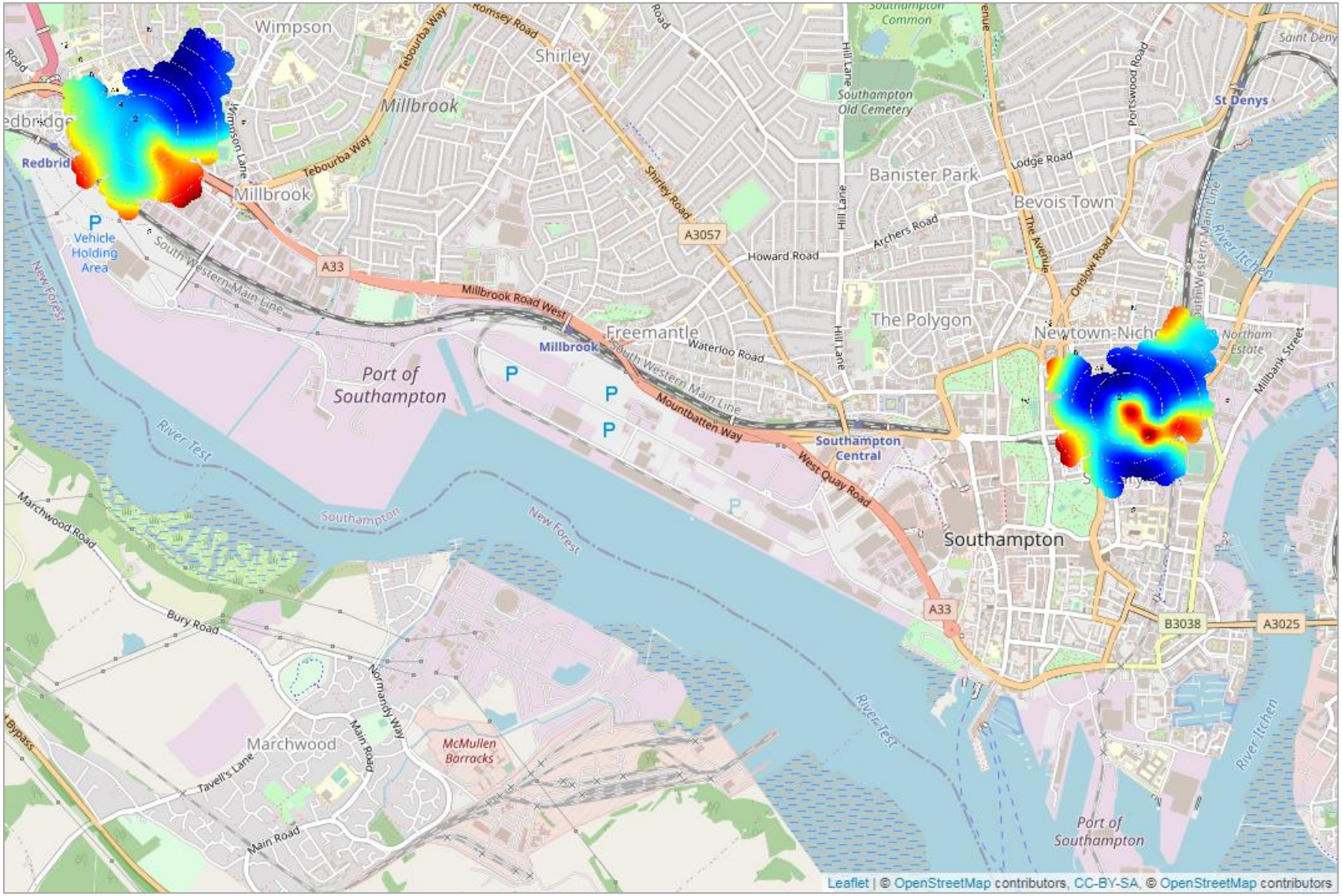


Figure 46: $PM_{2.5}$ polar map- Southampton Centre 2019 (all year)

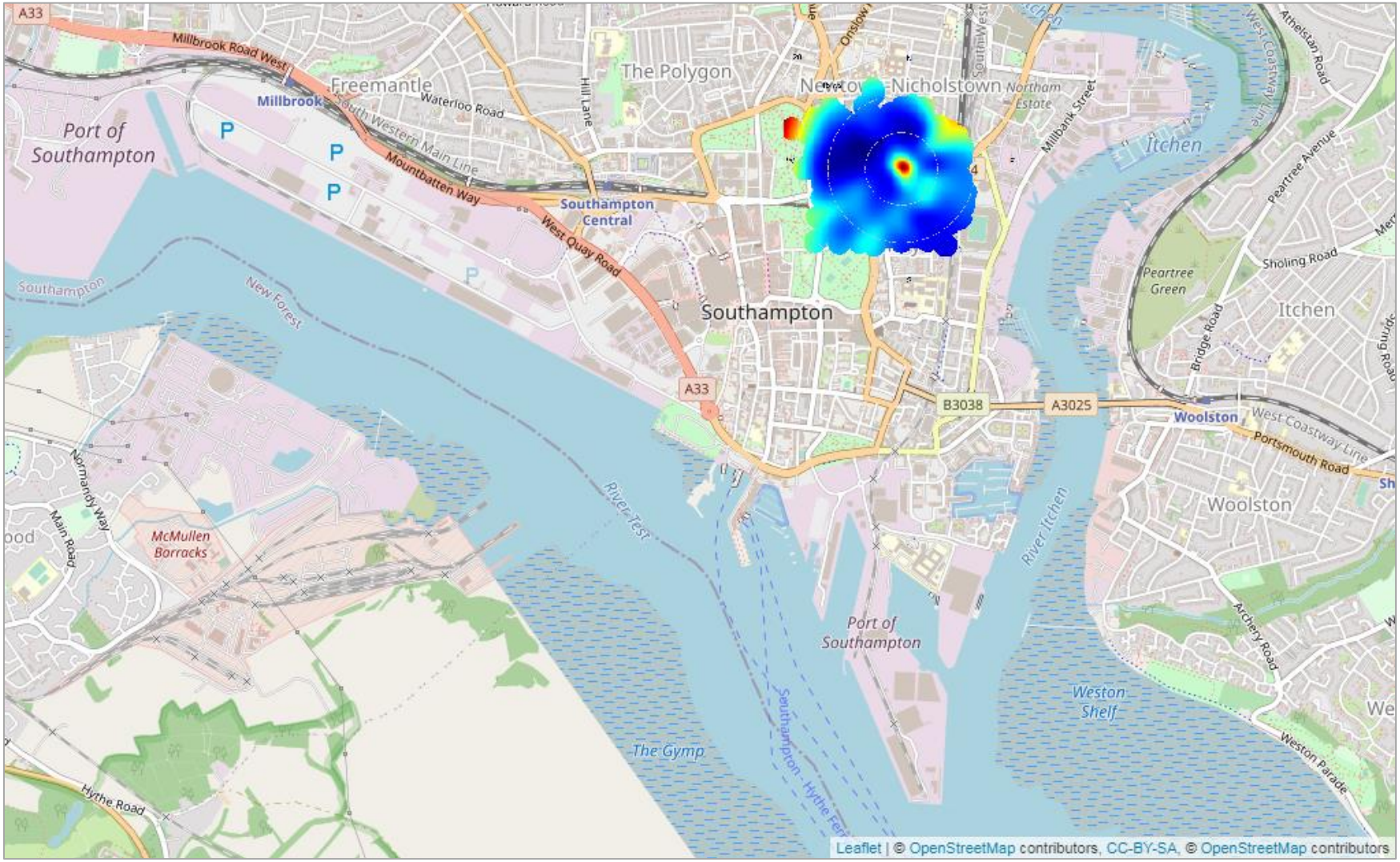


Figure 47: $PM_{2.5}$ polar map - Southampton Centre 2020 pre-lockdown period (1st Jan to 20th Mar 2020)

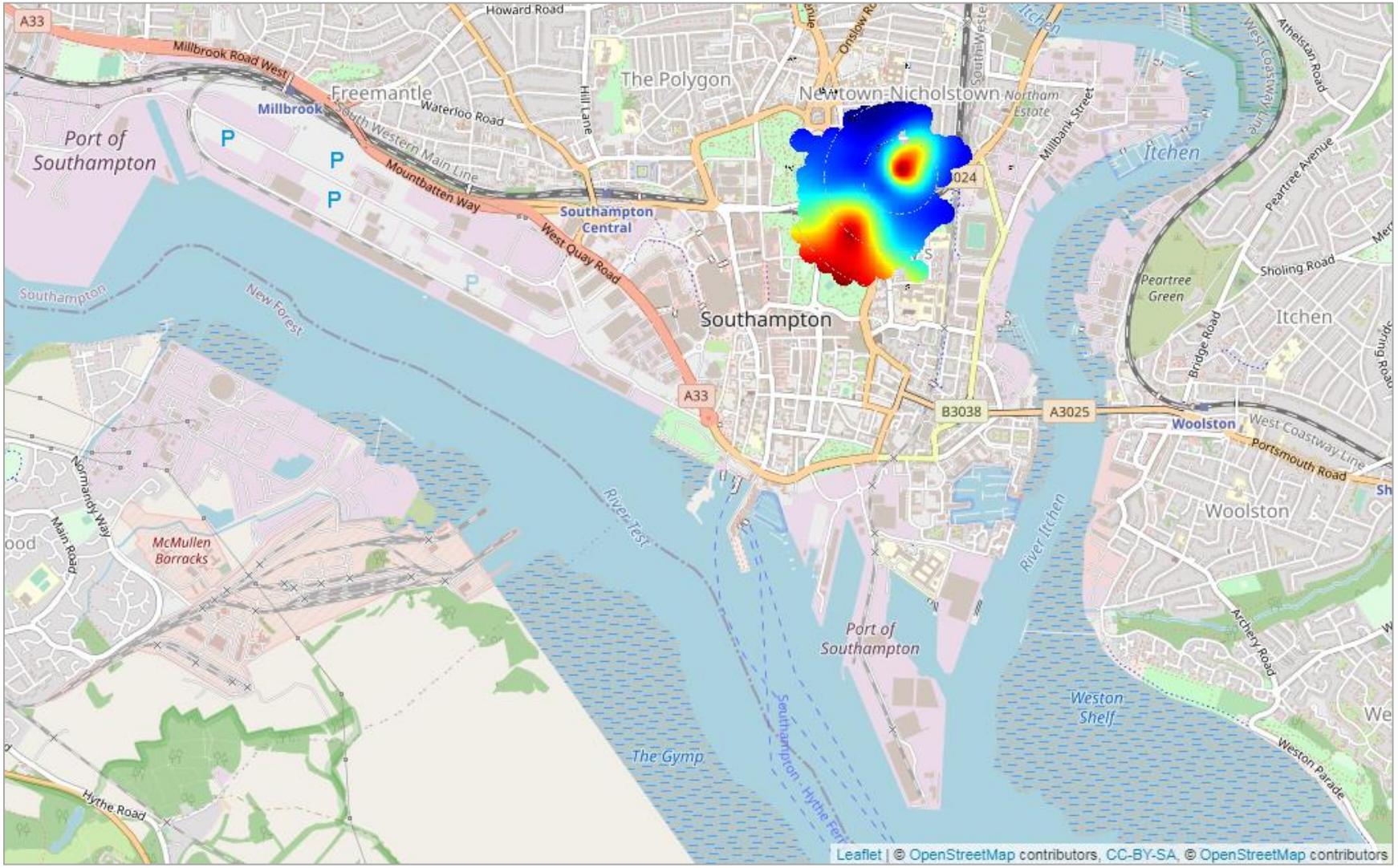
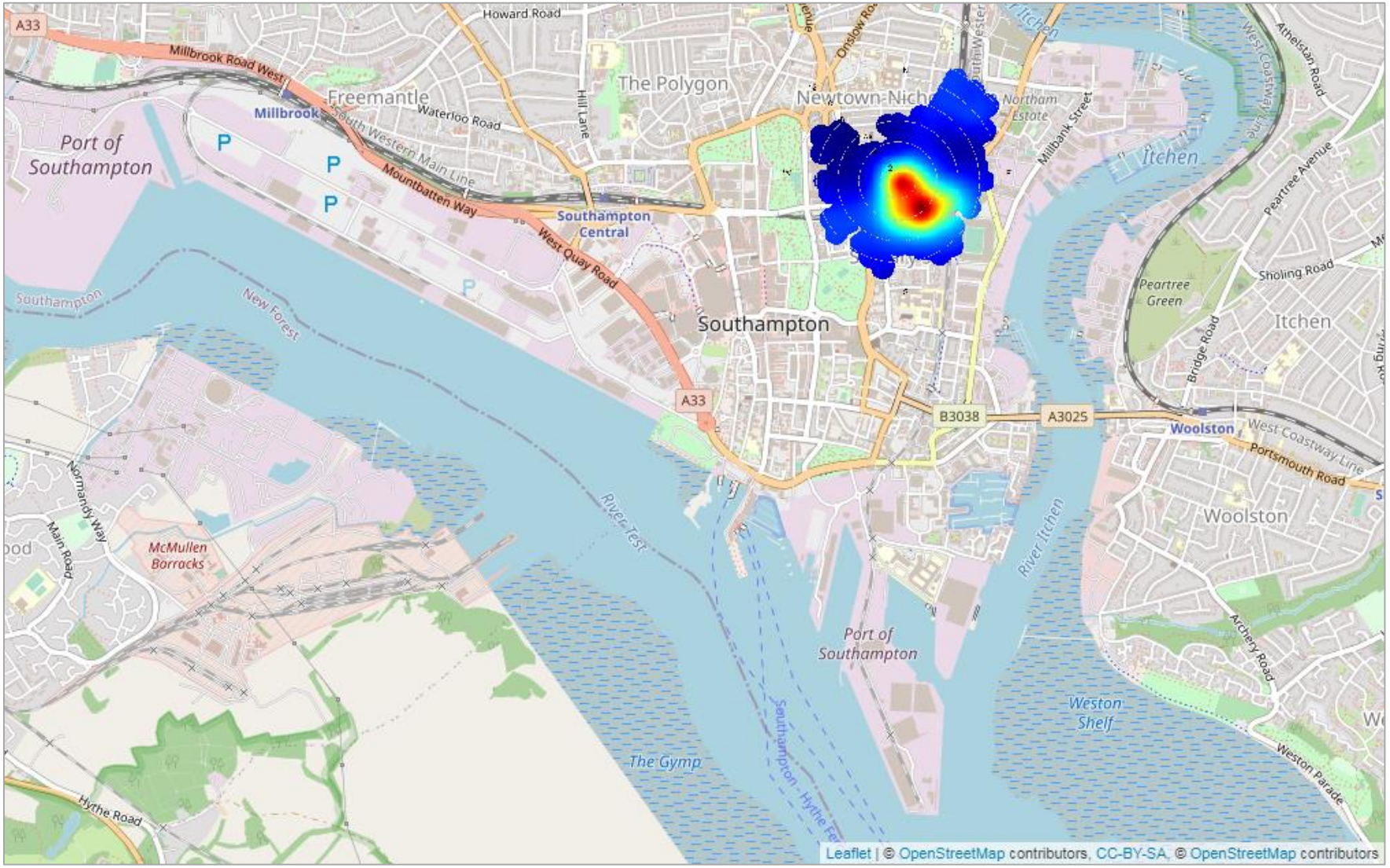


Figure 48: $PM_{2.5}$ polar map - Southampton during lockdown period (23rd March to 10th May 2020)



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2020 COVID-19 lockdown period - Air Quality Analysis: Addendum

Report for Southampton City Council

Customer:

Southampton City Council

Customer reference:

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Date:

6th October 2020

Ref: ED 11464145

Ricardo is certified to ISO9001, ISO14001, ISO27001 and ISO45001

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1 Introduction

This addendum provides supplementary information to be read in conjunction with our initial report describing analysis of pollutant measurements in Southampton both during and before the recent 'social distancing and subsequent lockdown' associated with the COVID-19 crisis in the UK[1].

The following additional analysis are presented:

- Additional extended time series analysis of pollutant measurements and more detailed road traffic activity data on the A33.
- Cumulative sum difference (cusum) analysis for NOx and NO_2 has now been extended up to the end of July 2020 – this builds on the initial time-series analysis by comparing observations with a business as usual scenario; and simulates removing the effect of weather conditions.
- Partial dependence plots showing how different variables such as traffic flow and wind speed act as explanatory variables and hence affect concentrations of NOx and NO_2, while keeping other variables at a constant level.
- Predictions of 2020 annual mean NO_2 concentrations at each of the automatic measurement sites in Southampton, using the predictive aspect of the above analysis and assumption re. average daily traffic flows.
- Information regarding shipping activity in Southampton during the lock down and subsequent months in 2020.

1.1 Limitations

Please note this report presents an indicative analysis based on the information currently available to us. The information presented should be considered in context with the following limitations:

- All 2020 pollutant measurement data included in the analysis from the automated sites in Southampton **are as of yet unratified**; i.e. no quality assurance checks, data scaling or removal of spurious data has been conducted. **Caution is recommended when interpreting analysis of unratified measurement data. The results and conclusions presented here should be considered in this context.**
- Traffic count data was not available for the roads immediately adjacent to each roadside air quality measurement station. As the best available proxy, count data from the closest relevant ATC site has been presented to provide a comparison where is it within a reasonable distance of the air quality measurement station.
- Quantitative shipping activity data covering the lock down period was limited to the number of cruise ships at berth, Red Funnel Ferry departures, and commercial shipping movements. Information regarding other types port activity was not available; this assessment should not be relied upon as a robust comparison of measured pollutant concentrations with changes in all types of port activity.

[1] Ricardo Energy & Environment: 2020 COVID-19 lockdown period – Air Quality Analysis; Report for Southampton City Council; ED11464138 Issue 1; Date 22nd July 2020

2 Additional analyses

2.1 Extended time series vs Cusum plots – NOx and NO_2

The Cumulative sum difference (cusum) analysis for NOx and NO_2 has now been extended up to the end of July 2020 – this builds on the initial time-series analysis by comparing observations with a business as usual scenario; and simulates removing the effect of weather conditions.

To recap, a cusum analysis accumulates the deviation in concentration from BAU, which helps to highlight possible **change-points** in time series. While the idea is simple, it is effective in the current context of the lockdown because we are considering deviations from BAU – which should on average be zero if things continue as normal. The approach is useful when the changes are small (perhaps at background sites) and where it is very difficult to see a change from the raw data alone.

Updated time series and cusum plots for each of the measurement sites for NOx and NO_2, are presented in turn below. The light blue shaded area of each plot represents the start of social distancing measures coming into force in the UK; the slightly darker blue shaded area represents the lockdown period from 23rd March onward.

The main conclusions from the updated plots are:

- There is some evidence that NOx and NO_2 decreased at all of the measurement sites during the lock-down period but, as concluded in the original report, the reductions are not as clear when compared with other sites in the UK.
- Measured NOx and NO_2 concentrations at Victoria Road in particular did not reduce as much as the other Southampton sites and measured concentrations here seem to have increased when compared with BAU in July and August.

Another cusum plot presented in Figure 5 compares the two AURN Southampton sites with other roadside sites in this part of the UK. The slope of the line showing the cumulative change in concentrations indicates there was a lower reduction in NO_2 at the Southampton sites than at many other sites, with the exception of nearby Bournemouth which is an urban background site where we would not expect to see a significant impact from reduced traffic activity. The reduction was more similar to some background or rural sites; this could indicate that the Southampton sites did seem to behave differently than other UK roadside sites during the lockdown.

Figure 1: Measured NOx concentrations - times series February to August 2020

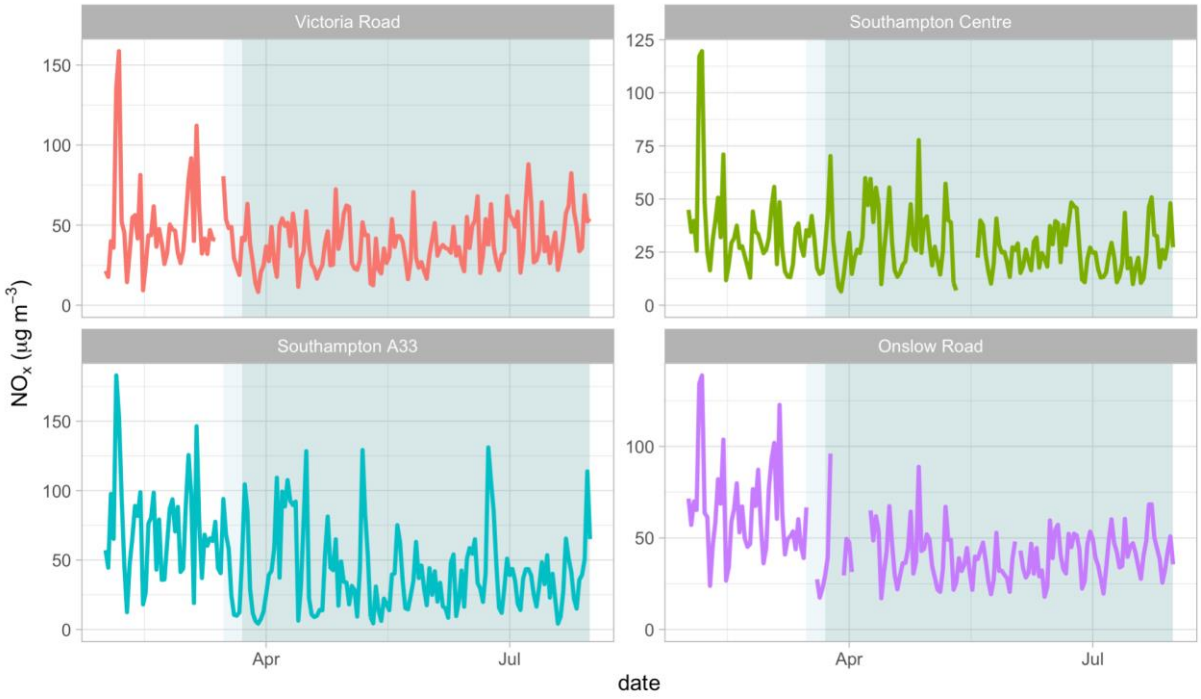


Figure 2: Measured NOx concentrations – cusum analysis

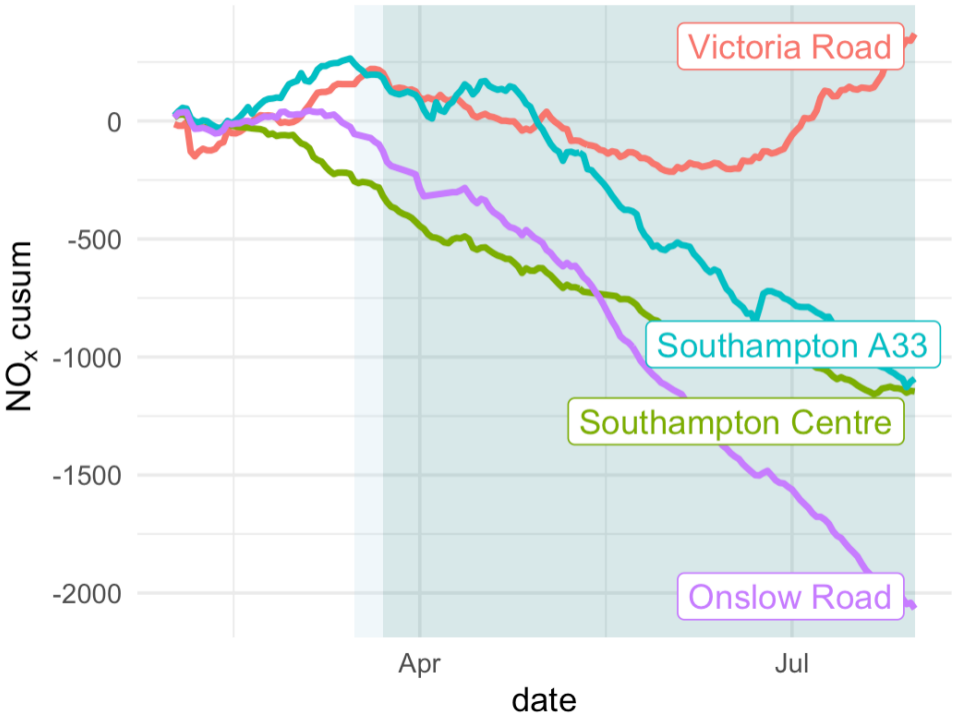


Figure 3: Measured NO_2 concentrations – Time series February to May 27th 2020

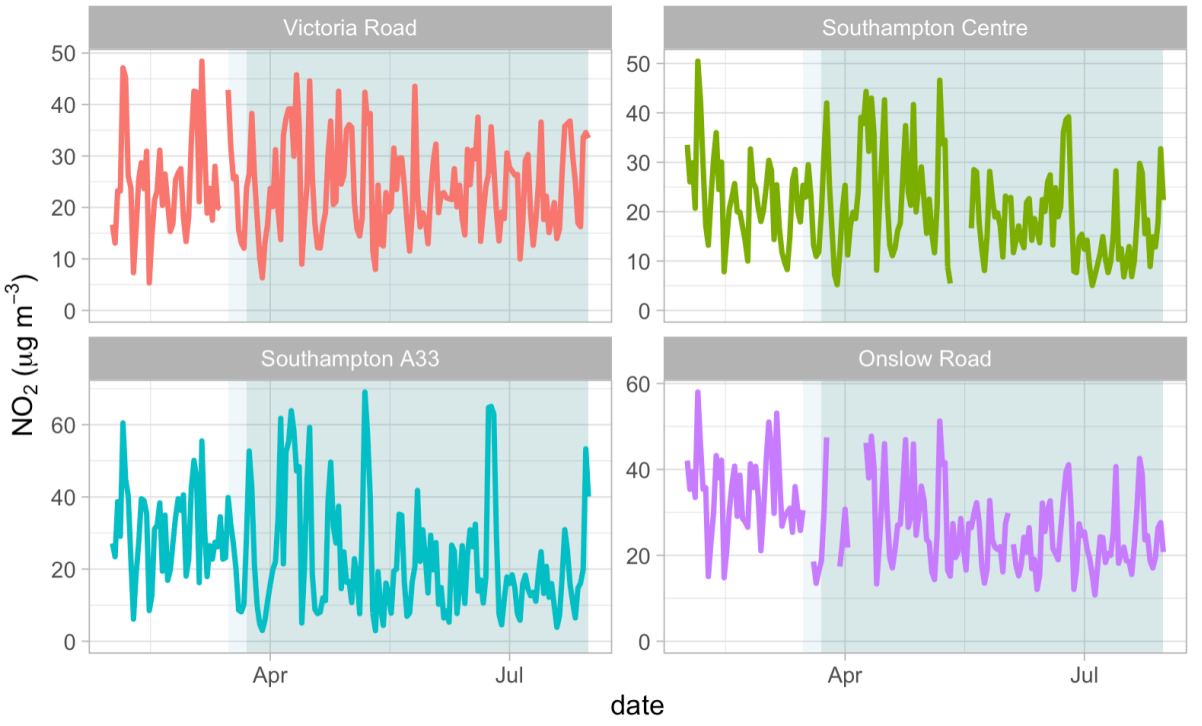


Figure 4: Measured NO_2 concentrations – cusum analysis

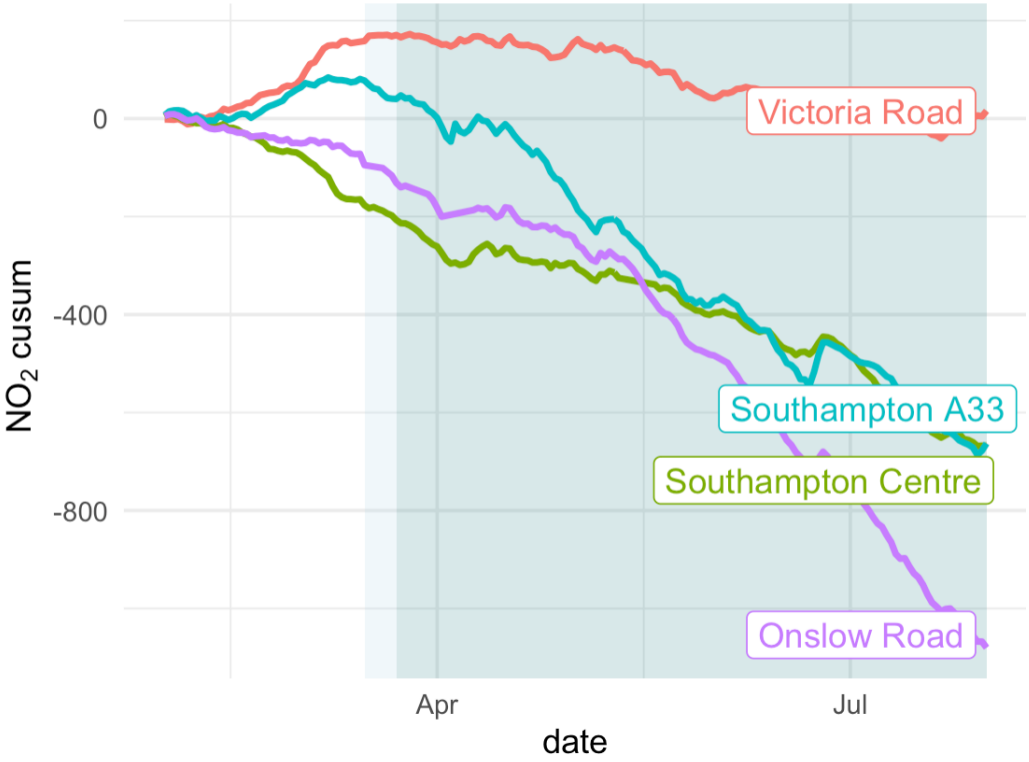
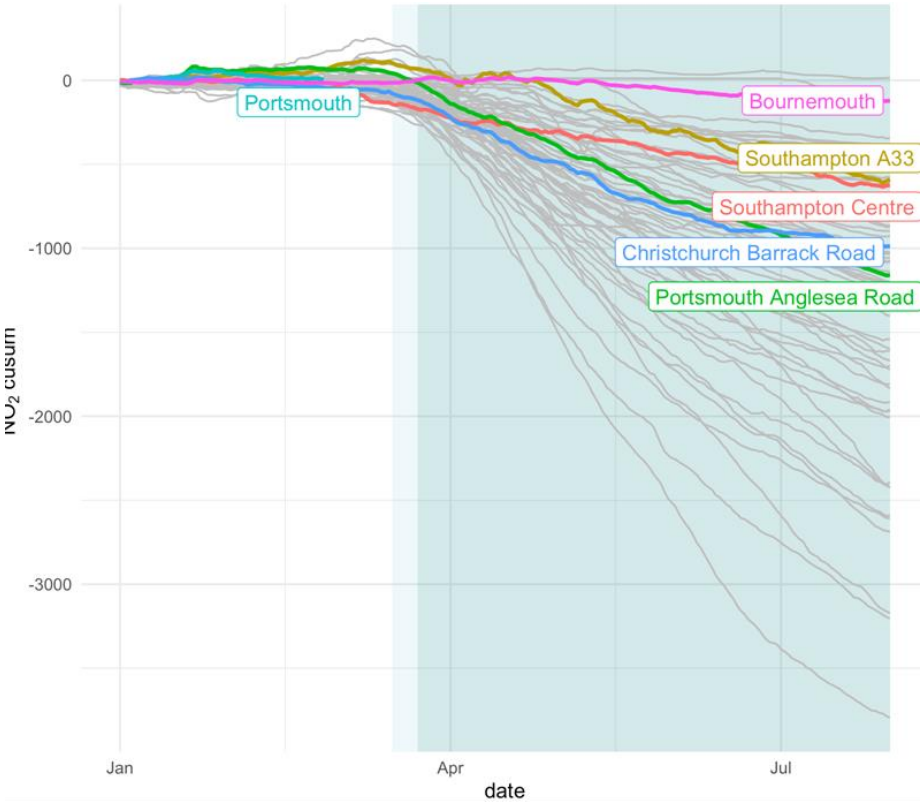


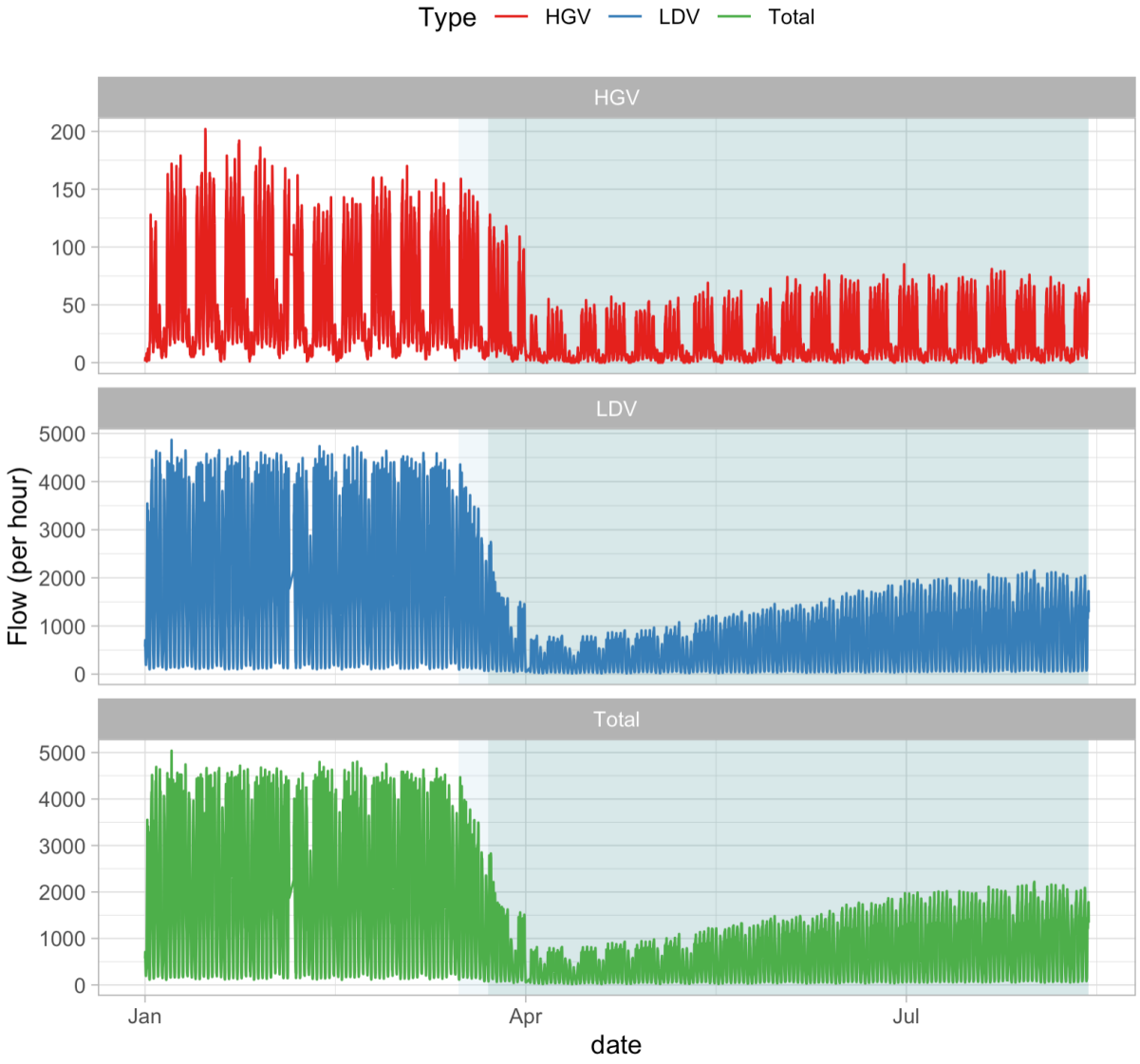
Figure 5: Cusum analysis of measured NO_2 concentrations – Southampton AURN sites vs other nearby UK AURN measurement sites



2.2 Road Traffic activity

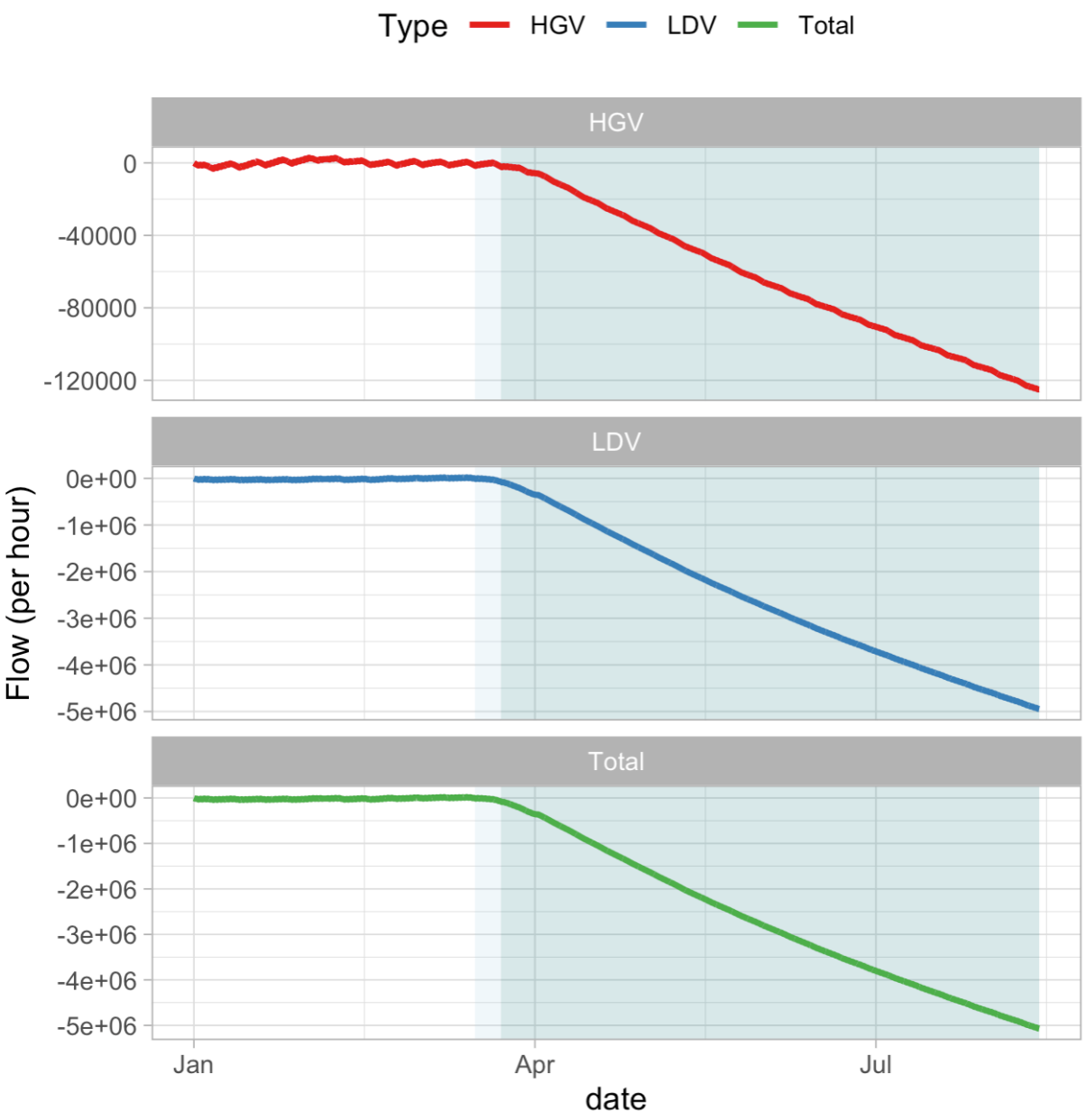
Measurements of traffic flow and type are not available directly adjacent to all the air quality sites, ATC data captured at Redbridge Road is thought to be most representative of the traffic on the A33 rather than the other measurement locations in Southampton. As shown in Figure 6, there is an obvious change in the flows of light duty vehicles (LDV) and heavy duty vehicles (HDV) around the time of the lockdown date of 3rd March 2020. The greatest reductions in vehicle flows were seen for LDVs.

Figure 6: Hourly flows of traffic split by LDV, HDV and Total vehicles.



The cusum plots for the traffic data provide a very clear indication of when flows of vehicles changed, as shown in Figure 7. The clearest decrease in LDV and HDV flows occurred around the lockdown date. The plot is a good demonstration of how the cusum approach works and helps to also understand the changes seen for pollutant concentrations.

Figure 7: Cusum plots for traffic data.



The traffic data can also be used directly in the statistical models to help explain the concentrations of NO_x and NO_2. As noted above, the traffic data is not ideally representative of traffic in the immediate vicinity of the air quality sites but is likely a strong indicator of changes at the A33 site in particular. The main benefit of the data available is that it provides a continuous hourly record (i.e. similar to air quality data) of flows of HGVs and LDVs, which can usefully be included in the models.

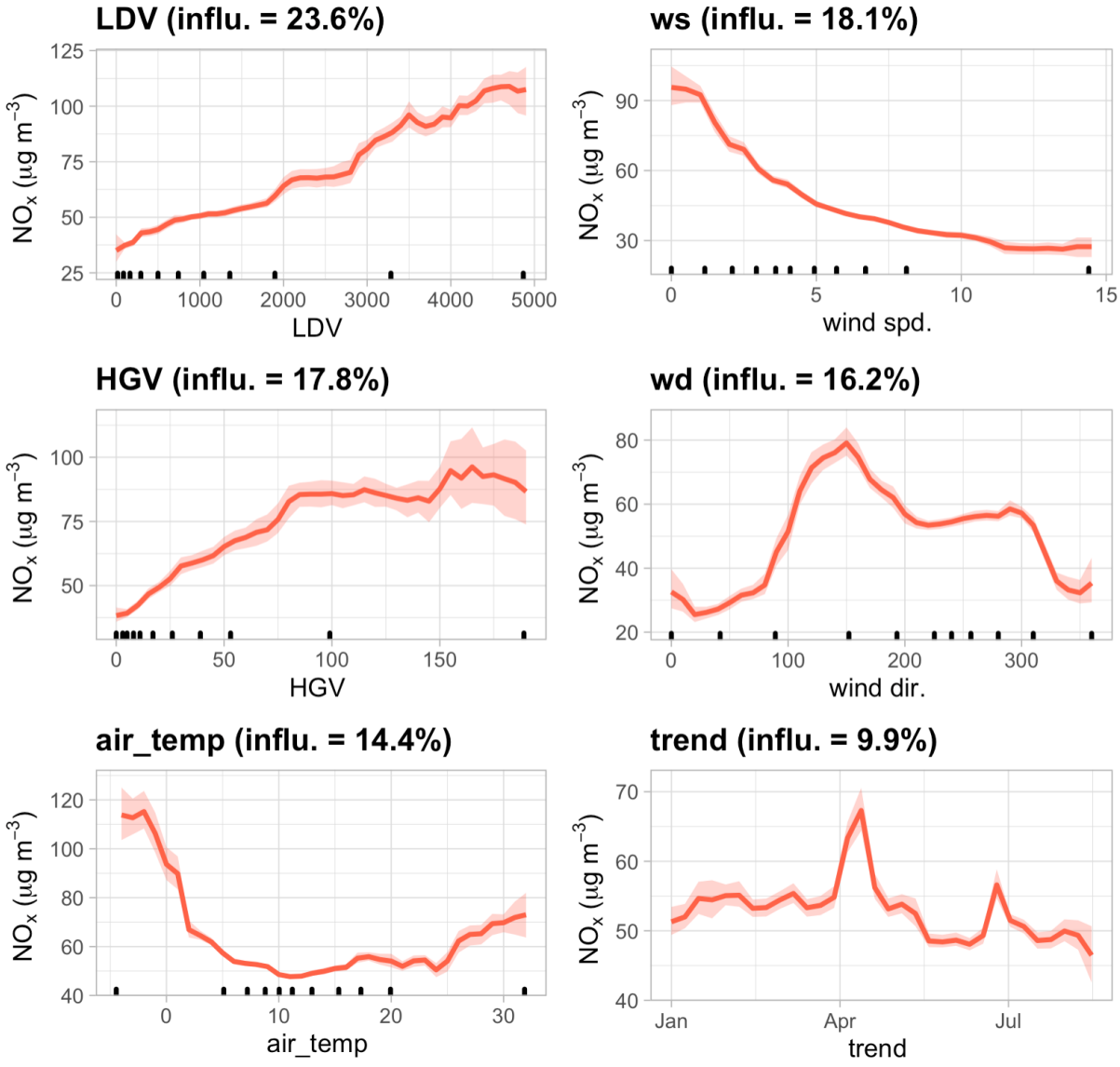
The main benefit of the inclusion of traffic data in the models is two-fold. First, it helps to show the extent to which HGVs and LDVs contribute to concentrations of NO_x and NO_2. Second, by accounting for the traffic flows in the model, any residual features seen in the trend will likely be controlled by other factors. In essence, the trend will reflect factors that are not explicitly included in the models.

2.3 Partial dependence plots

One of the useful outputs from the models is called a *partial dependence plot*, shown in Figure 8. These plots show how different variables such as traffic flow and wind speed affect concentrations of NO_x, while keeping other variables at a constant level. They provide a good indication of how each variable affects the concentration of NO_x without the potentially confusing influence of many other factors.

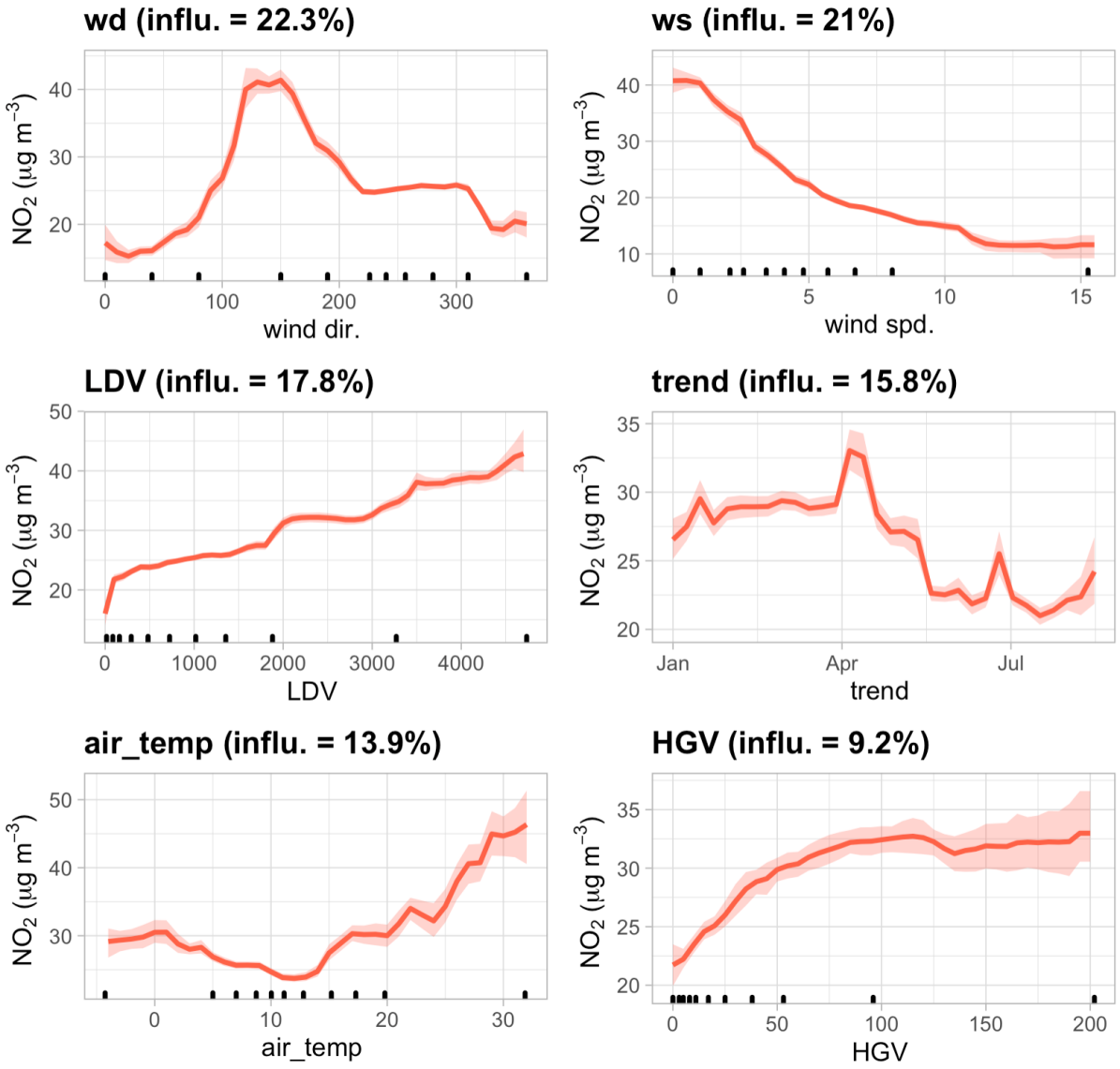
The analysis reveals that the best explanatory variable for NO_x concentrations is the flow of LDVs and not HGVs, as shown by the 'influence %' in each plot. As expected, the concentrations of NO_x tend to increase with increasing flows of vehicles. Also expected is that concentrations tend to decrease with increasing wind speed and increasing temperature due to increased turbulence and more efficient dispersion. The trend plot shows a slight decrease in NO_x concentrations overall, but a prominent peak in early April. This peak cannot be explained by traffic flow or meteorological data, which would suggest another contribution. It is difficult from this analysis alone to identify the cause of the peak in NO_x at this time but interesting to note it is timed with increases in PM_{10} seen at the Southampton Centre site.

Figure 8: Partial dependence plots for different variables for concentrations of NO_x at the A33 site. The panels are ordered in terms of their influence on concentrations.



Largely similar responses are seen for NO_2 concentrations compared with NO_x, as shown in Figure 9; although there is perhaps stronger evidence that there is a clearer downward trend in NO_2 compared with NO_x. This downward trend might reflect wider emissions reductions across Southampton rather than the reductions in emissions along the A33. Similar to NO_x, there is evidence of a peak in concentrations in early April.

Figure 9: Partial dependence plots for different variables for concentrations of NO_2 at the A33 site. The panels are ordered in terms of their influence on concentrations.



2.4 Predictions for the rest of 2020

The impact that Covid-19 has had on road traffic activity and emissions to air will strongly affect the NO_2 annual mean concentrations measured in 2020 and hence issues related to compliance. The statistical models that have been developed for each site can be used to predict the likely concentrations of NO_2 for all of 2020. To do so requires two key assumptions. First, a scenario on how the rest of the year will develop in terms of reduced traffic activity and second, the impact of meteorology on the rest of the year. Taking the first issue, we have run a scenario that assumed the reduced activity will be similar to that for July 2020 (although a range of assumptions could be used). Second, the rest of the year (most of August to the end of December 2020) could experience a range of meteorological conditions. To tackle this, a range of different meteorological conditions have been simulated from assuming the rest of 2020 has meteorology the same as the same period in 2010 and 2011 etc. through to 2019 i.e. 10 different meteorological scenarios.

The results from the analysis are shown in Table 1 and demonstrate in all cases considerably reduced concentrations for NO_2 in the range 21 to 27 $\mu g.m^{-3}$ i.e. all sites meeting the Limit Value of 40 $\mu g.m^{-3}$ by a considerable margin. Clearly, the actual outcome for 2020 will depend on the extent to which traffic volumes return to (or exceed) pre-lockdown levels and the effect of the weather over the rest of 2020.

Table 1: Predicted annual mean NO_2 concentrations at Southampton air quality measurement sites. The range in values reflects 10 different 'meteorological years' for August 2020 to December 2020.

Site	Predicted 2020 NO_2 annual mean ($\mu g.m^{-3}$)
Southampton Centre	21 (18 – 24)
A33	21 (18 – 26)
Victoria Road	27 (24 – 29)
Onslow Road	26 (22 – 30)

Figure 10 to Figure 13 show the measured concentrations at all four of the Southampton measurement sites together with the predicted range of possible NO_2 concentrations from late July onwards.

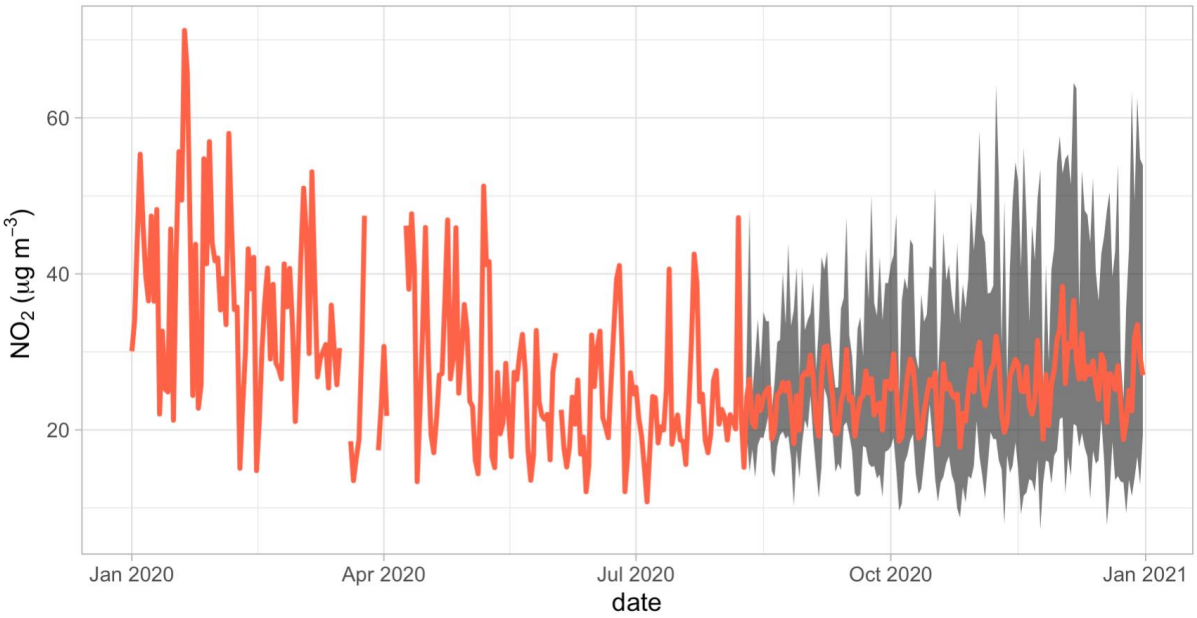


Figure 10: Daily mean NO_2 concentrations at Onslow Road. The first part of the plot (up to late July) shows measured concentrations. From late July onwards the estimated average predicted NO_2 concentration is shown together with the range of concentrations (grey shading) depending on the meteorological year.

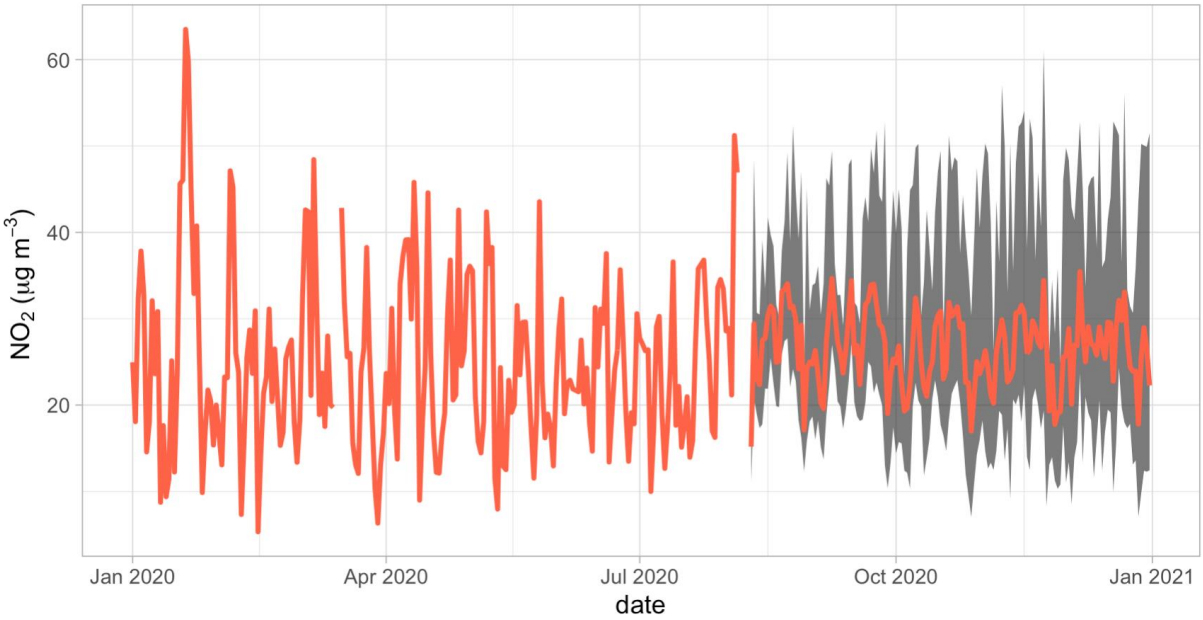


Figure 11: Daily mean NO_2 concentrations at Victoria Road. The first part of the plot (up to late July) shows measured concentrations. From late July onwards the estimated average predicted NO_2 concentration is shown together with the range of concentrations (grey shading) depending on the meteorological year.

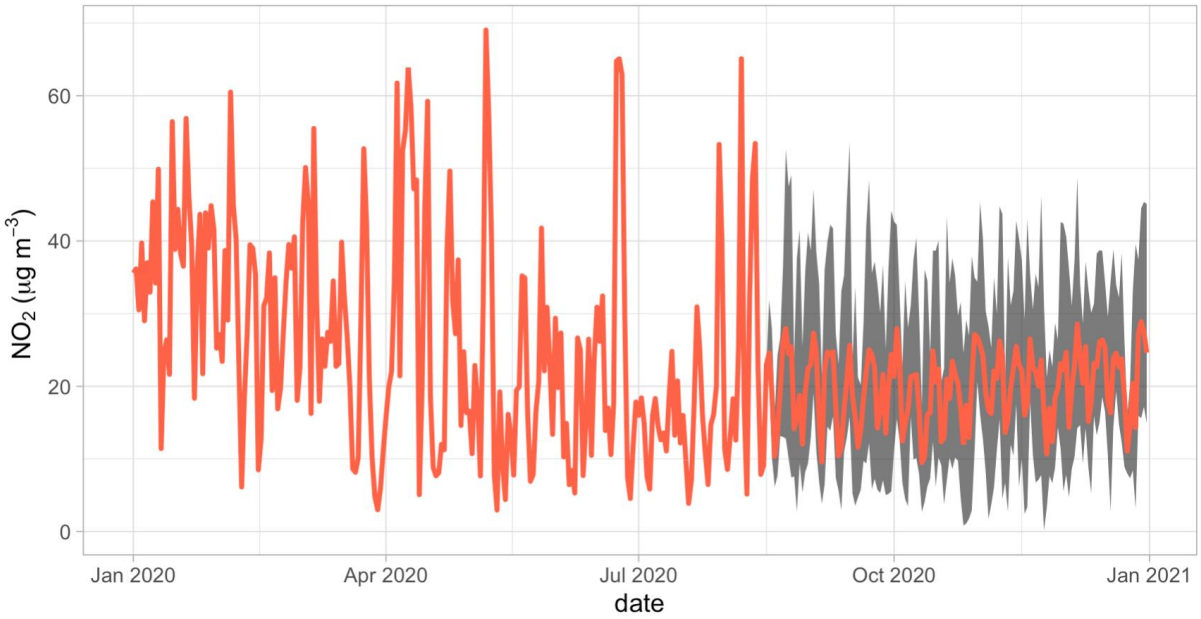


Figure 12: Daily mean NO_2 concentrations at the A33 site. The first part of the plot (up to late July) shows measured concentrations. From late July onwards the estimated average predicted NO_2 concentration is shown together with the range of concentrations (grey shading) depending on the meteorological year.

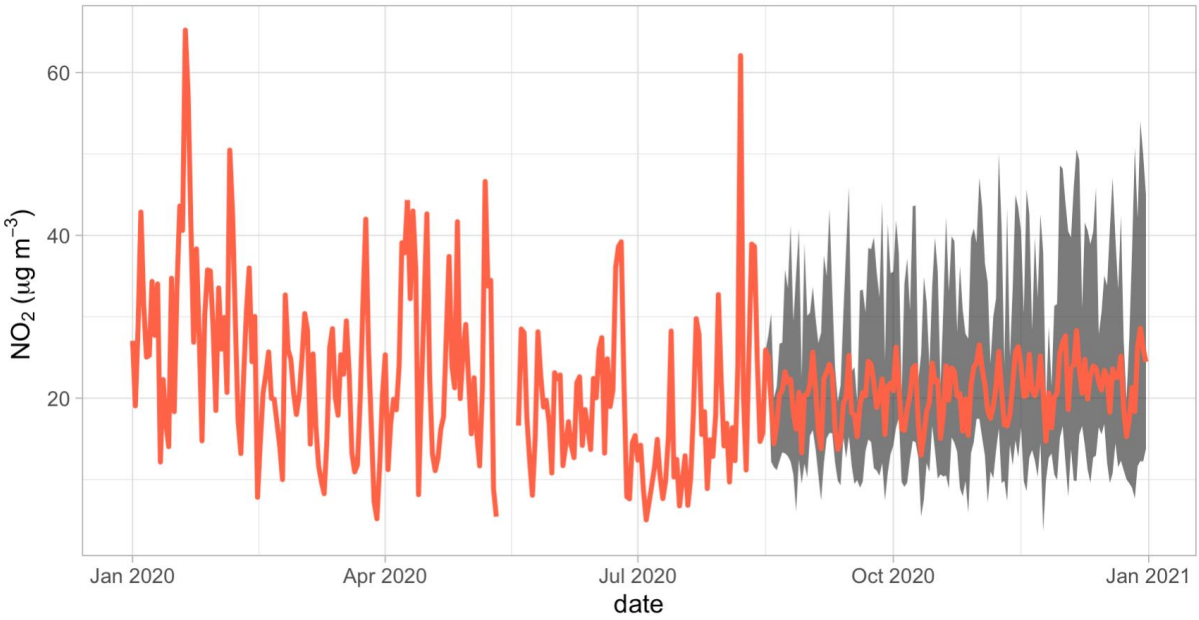


Figure 13: Daily mean NO_2 concentrations at Southampton Centre. The first part of the plot (up to late July) shows measured concentrations. From late July onwards the estimated average predicted NO_2 concentration is shown together with the range of concentrations (grey shading) depending on the meteorological year.

2.5 Shipping activity

Shipping activity in the Southampton port area was affected by restrictions during the recent COVID-19 crisis. This is likely to have had some effect on emissions to air from shipping when compared with business as usual. To assist with our analysis, Associated British Ports (ABP) and Red Funnel have kindly provided both qualitative and quantitative information regarding some of the changes to shipping and port activity at Southampton during the lock-down period.

In summary:

- The automotive function at the port was not operational during the lock-down period, normal operation is estimated to have commenced again in late July. During this time no vehicle import/export via Southampton occurred via roll on-roll off (RoRo) vehicle carriers. Prior to the lock down restrictions, approximately 130 to 150 RoRo vehicle carriers would arrive and depart from the port in a normal month; it is therefore reasonable to conclude that the reduction in this activity at the port will have reduced the associated emissions to air.
- Container freight shipment activity continued as usual.
- Records of the numbers of Cruise ships berthed at the Western Docks were provided (please see time-series chart and further commentary presented below)
- The Red Funnel passenger ferry to the Isle of Wight has operated on a reduced service throughout the lock-down period and a reduced (but greater frequency than during the initial lock down) service is currently operating.

2.5.1 Cruise ship activity

ABP's records of the number of cruise ships berthed at the Western docks during the period 14th March 2020 to the 31st July 2020 are presented in a time-series bar chart in Figure 14. This trend data indicates that the number of cruise ships at berth was on average greater during the period from Late-March to mid-June and appears to have reduced during late June and July. There is however no clear spike in the number of cruise ships that were berthed that can be correlated with periods when measured pollutant concentrations were at a maximum e.g. in early April 2020.

Another time-series bar chart comparing the number of cruise ships berthed during the same dates in 2019 versus 2020 is presented in Figure 15. The 2019 berth occupancy data shows a more typical pattern of cruise ship activity whereby up to five berths are in use at the weekends when cruise holidays embark/disembark. It is clear from this comparison that, on average, more cruise ships were at berth during 2020 when compared with the 2019 business as usual activity.

The overall increase in monthly cruise ship activity when compared with 2019 could intuitively be interpreted to indicate that there is likely to have been increased emissions to air from cruise ship manoeuvres and hoteling activity in the harbour. It is however important to consider that as the cruise ships were not passenger laden, energy use and load on the on-board energy generation plant would have been greatly reduced. Energy use from an empty hoteling/berthed cruise ship is significantly less than a cruise ship full of passengers with operational restaurants, galleys, hot water supply and other on-board facilities. Although there was increased berth occupancy, there were no additional manoeuvring of the cruise ships and hence emissions attributable to this once berthed.

2.5.2 Red Funnel ferry operations

Red Funnel kindly provided some information comparing Southampton ferry activity in 2019 with 2020.

The variance in ferry departures when comparing the February to July periods in 2019 vs 2020 was as follows:

- 1/2/2019 > 31/7/2019 = 8,143
- 1/2/2020 > 31/7/2020 = 4,441

All non-running vessels would shut down their engines, however weekly (usually on a Wednesday) ships would be tested and sea trailed. This information indicates that ferry activity has on average been approximately half of that during business as usual.

2.5.3 Other Commercial shipping movements

ABP also provided vessel schedule for each of the dock areas within the port area. Total ship movements during the period 1st March to 31st July 2020 are presented as a time-series plot in Figure 16. The time series does not indicate any significant change in ship movements during the lock - down restrictions. A slight decrease in activity occurred in the early stages of the lock-down restrictions with a slight increase during late April and early May.

2.5.4 Shipping activity conclusions

As described above, there were various effects on the freight, automotive, cruise and ferry shipping functions in the port that will likely have led to both reductions and increases in emissions to air from various aspects of these activities when compared with business as usual. This evidence is limited to the information currently available for these types of shipping activity only, and does not include consideration of other maritime source types e.g. smaller commercial vessels, recreational vessels etc.

There is insufficient information to quantify how much of an effect these changes in typical port activity would have on measured pollutant concentrations in Southampton.

To estimate this, detailed source apportionment calculations would be required; derived from robust lock-down activity emission calculations in combination with atmospheric dispersion modelling. This would require any estimated change in shipping emissions to be modelled in synergy with all other changes to local emission sources such as road traffic and rail activity

Figure 14: Number of cruise ship berths in use per day 14/03/20 to 31/07/20 (7 berths max)

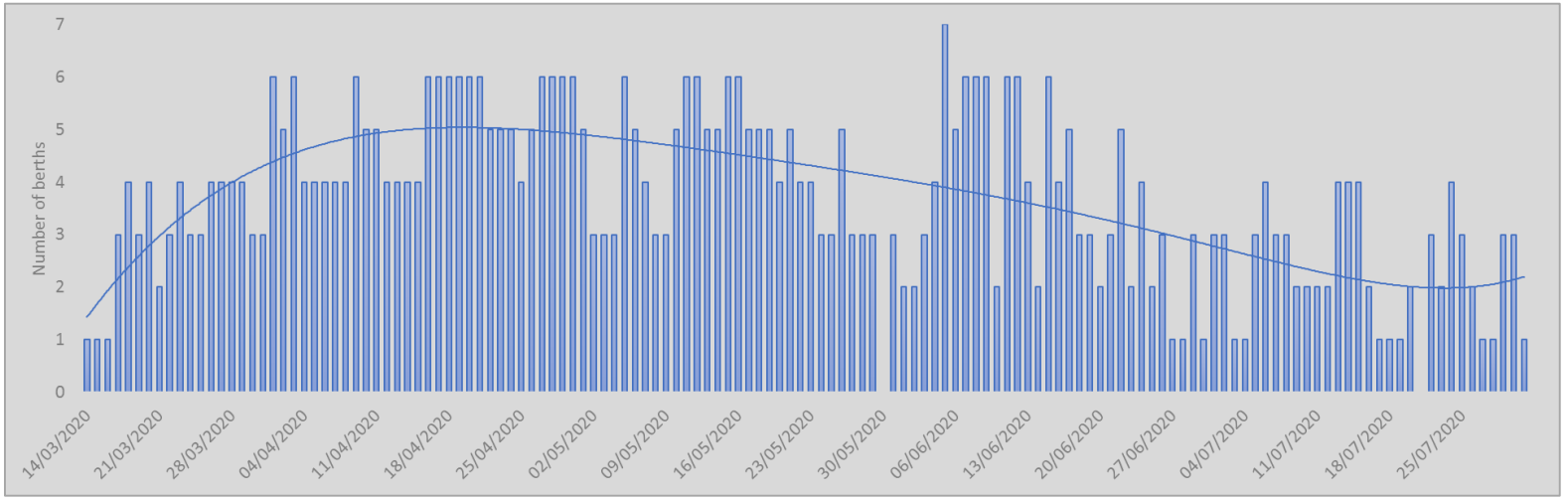
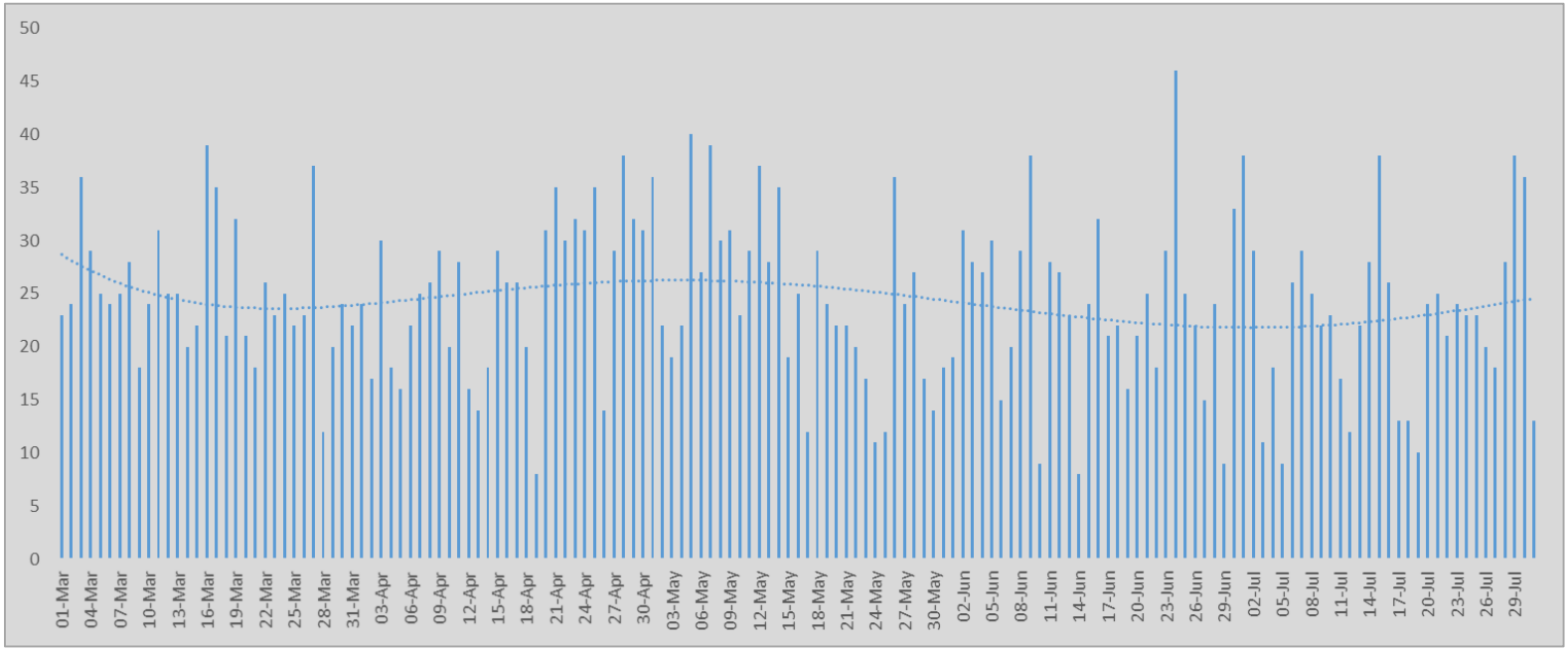


Figure 15: Number of cruise ship berths in use per day – Comparison of 2019 vs 2020 (14/03 to 31/07)

Figure 16: Daily commercial shipping movements at Southampton (all docks combined) 1st March 2020 to 31st July 2020



3 Summary and conclusions of additional analysis

This addendum presents additional content as a supplement to our initial report describing analysis of pollutant measurements in Southampton both during and before the recent 'social distancing and subsequent lockdown' associated with the COVID-19 crisis in the UK

Additional Time series analysis and extended cumulative sum difference (cusum) analysis for NOx, NO_2 and more detailed traffic data

Updated time series and cusum plots at each of the Southampton air quality measurement sites for NOx and NO_2 have been presented. The cusum analysis accumulates the deviation in concentration from an estimate of what would occur during business as usual. The main conclusions from the updated plots were:

- There is some evidence that NOx and NO_2 decreased at all of the measurement sites during the lock-down period but, as concluded in the original report, the reductions are not as clear when compared with other sites in the UK.
- Measured NOx and NO_2 concentrations at Victoria Road in particular did not reduce as much as the other Southampton sites and measured concentrations here seem to have increased when compared with BAU in July and August.

Time series analysis of more detailed traffic count data on the A33 confirmed that there was a significant reduction in daily flows of light duty vehicles (LDV) and heavy duty vehicles (HDV) around the time of the lockdown date of 23rd March 2020. The greatest reductions in vehicle flows were seen for LDVs.

Partial dependence plots and explanatory variables for measured NOx and NO_2 concentrations

Partial dependence plots have been presented. The plots show how different variables such as traffic flow and wind speed act as explanatory variables; and estimate how each of these affect measured NOx and NO_2 concentrations while keeping other variables at a constant level.

The analysis reveals that the best explanatory variable for NOx concentrations is the flow of LDVs and not HGVs, as shown by the 'influence %' in each plot. As expected, the concentrations of NOx tend to increase with increasing flows of vehicles. Also expected is that concentrations tend to decrease with increasing wind speed and increasing temperature due to increased turbulence and more efficient dispersion. The trend plot shows a slight decrease in NOx concentrations overall, but a prominent peak in early April. This peak cannot be explained by traffic flow or meteorological data, which would suggest another contribution.

Largely similar responses are seen for NO_2 concentrations when compared with NOx; although there is perhaps stronger evidence that there is a clearer downward trend in NO_2 compared with NOx. This downward trend might reflect wider emissions reductions across Southampton rather than the reductions in emissions along the A33. Similar to NOx, there is evidence of a peak in concentrations in early April.

Predictions of 2020 annual mean NO_2 concentrations at each of the automatic measurement sites in Southampton

The statistical models that have been developed for each site have also been used to predict the likely annual mean NO_2 concentrations for all of 2020. Two key assumptions have been made regarding reduced traffic activity; and the impact of meteorology on the rest of the year whereby a range of different meteorological conditions have been simulated.

The statistical model results predict considerably reduced annual mean NO_2 concentrations at all measurement sites, range from 21 to 27 $\mu g.m^{-3}$ i.e. all sites are predicted to be compliant with the 40 $\mu g.m^{-3}$ limit value by a considerable margin. The actual NO_2 annual mean concentration measured in 2020 will depend on the extent to which traffic volumes return to (or exceed) pre-lockdown levels and the effect of the weather over the rest of 2020.

Shipping activity

During the lock down period there were various effects on the freight, automotive, cruise and ferry shipping functions in the port. When compared with business as usual, this will have likely led to both reductions and increases in emissions to air from various aspects of these shipping activities,

Analysis of port records indicates that, on average, more cruise ships were at berth during 2020 when compared with the same period in 2019 (example of business as usual) activity. There is however no clear spike in the number of cruise ships that were berthed that can be correlated directly with periods when measured pollutant concentrations were at a maximum during the lock down.

The increased number of cruise ships at berth could intuitively be interpreted to indicate that there is likely to have been increased emissions to air; it is however important to consider that as the cruise ships were not passenger laden, energy use and load on the on-board energy generation plant would have been greatly reduced, hence emissions to air per ship would also likely be reduced.

Final conclusions

In summary, from this addendum and the original analysis, we conclude:

- Measured pollutant concentrations did reduce during the lockdown but potentially less than other similar areas;
- The measurement data indicates an increase in measured concentration of all pollutants in early April that is not explained by traffic or weather;
- Polar plots suggest there could be an impact of some activity in the direction of the port or other nearby industrial sources, but it is not definitive;
- There are clear changes in activity at the port with some likely to reduce emissions and others likely to increase emissions. However, there is no clearly definable spike/change in activity aligned with the spike in NOx/NO_2 in early April.
- Annual average NO_2 concentrations measured during 2020 are likely to be considerably lower than previous years due to effect of lesser road traffic activity during the lockdown restrictions and are expected to be well within the limit values.

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DECISION-MAKER:	OVERVIEW AND SCRUTINY MANAGEMENT COMMITTEE
SUBJECT:	SOUTHAMPTON CITY VISION LOCAL PLAN UPDATE
DATE OF DECISION:	15 OCTOBER 2020
REPORT OF:	CABINET MEMBER FOR GREEN CITY AND PLACE / EXECUTIVE DIRECTOR PLACE

CONTACT DETAILS				
Executive Director	**Title**	**Executive Director Place**		
	Name:	**Kate Martin**	**Tel:**	**023 8083 4670**
	E-mail:	**kate.martin@southampton.gov.uk**		
Author:	**Title**	**Engagement Specialist / Strategic Planning Manager**		
	Name:	**Helen Owens / Amber Trueman**	**Tel:**	**023 8091 7597**
	E-mail:	helen.owens@southampton.gov.uk / amber.trueman@southampton.gov.uk		

STATEMENT OF CONFIDENTIALITY
N/A

BRIEF SUMMARY

Southampton City Vision is the new Local Plan for the city. Once adopted it will set out the planning policy framework for the city which gives us the ability to effectively guide and control future development. A local plan is also a key place shaping tool which is both city wide and community focussed. The plan must meet the development needs of the city whilst recognising the needs and diversity of individual communities. It is also a legal requirement under the Planning and Compulsory Purchase Act 2004, which states that all local planning authorities should have a local plan.

The first consultation on Southampton City Vision commenced on 10 February 2020. It was due to run for 10 weeks to 19 Aril 2020 but was extended to 31 May 2020 due to disruption caused by Covid-19.

This report includes:

- A summary of the results of this first consultation, and the key messages to be considered as the Local Plan is developed;
- Our current stage in the plan-preparation process and the next steps to be taken, including how we will use these consultation results and develop options working with the Council's leadership team, elected members and key partners;
- Details of the actions Strategic Planning intend to take in order to meet the 'Tackling Childhood Obesity in Southampton' scrutiny inquiry recommendations numbers 1 and 3; and

• An overview of the key impacts of the COVID-19 pandemic, including on the timetable of the plan and how we will continue to consult throughout the development of the Local Plan, given restrictions on public gatherings.		
RECOMMENDATIONS:		
	(i)	To note the update on Local Plan progress and summary of the impacts and reactions to the Covid-19 pandemic.
	(ii)	To support the proposed 'next steps' relating to the publication of consultation results and follow-up engagement activities including internal workshops.
	(iii)	To support the proposed changes to the Statement of Community Involvement as appropriate reaction to Covid-19 impacts.
	(iv)	To support the proposed actions proposed to meet the 'Tackling Childhood Obesity in Southampton' scrutiny inquiry recommendations numbers 1 and 3.
REASONS FOR REPORT RECOMMENDATIONS		
1.	To provide an update and maintain transparency.	
2.	To ensure progress on the Local Plan is continued.	
3.	To ensure the public are receiving timely feedback on consultation results.	
4.	To provide appropriate response to the Covid-19 pandemic, as per Government guidance.	
ALTERNATIVE OPTIONS CONSIDERED AND REJECTED		
5.	Do not publish consultation results – This was rejected as it is both a project objective and wider Council aim to ensure that all consultation results are fed back to the public and in a timely manner, where appropriate. To not publish the results of this initial consultation would be considered a failure of Council service and would likely cause members of the public to feel their voices are not heard and considered as part of the plan-making process. To not make the effort to publish results may also impact on the number of people taking part in future engagement events and the Strategic Planning team having to use an unrepresentative sample of Southampton's population to guide the formulation of planning policies.	
6.	Do not update Statement of Community Involvement – This option was also rejected as it is currently impossible to meet the standards of the current SCI given current national restriction related to Covid-19. To not amend the SCI would mean that all future engagement, whilst restrictions are in place, would be contrary to our own standards and SCC's new Local Plan could be open to challenge. If upheld, this could result in the new Local Plan being found 'unsound' by a Planning Inspector which means the plan cannot continue in the process to adoption.	
DETAIL (Including consultation carried out)		
	Consultation results	
7.	The objective of the consultation was to start understanding priorities, ideas and aspirations for the city centre and local neighbourhoods from residents, businesses and anyone with an interest in the future of Southampton. It was also important that the consultation enabled wide engagement with a	

	representative sample of the city's population and businesses by being accessible and relevant with supporting communication and promotion across a range of channels.
8.	The consultation was predominantly carried out through an online survey and supported by a series of community drop-in sessions and workshops with a range of community, school and business groups.
9.	Over 3,000 responses were received across all channels, the vast majority (2,670) being made via the on-line survey and over 270 attended the community events that took place.
10	The consultation was framed around six key challenges/themes. Of these 'environment and climate change' was considered to be the most important, closely followed by 'growth and investment' and 'getting around'. Respondents were also asked to identify priorities both in their local area and the city centre. The same three came out as most important locally and for the city centre: • Parks, open spaces, nature and conservation • Reducing air pollution and improving air quality • Access to frequent and reliable public transport.
11.	Over 3,100 individual comments were received through the on-line survey, with further responses received by email. Overall, the comments support and help us to understand the results of the structured questions.
12.	Key messages include: • Environment and climate change is the top priority. People want to have more sustainable and environmentally friendly options, particularly when it comes to transport, but neither public transport nor cycle/walking routes are currently adequate to deter the use of cars. • Some felt that more radical decisions should be made such as the city centre being completely car free. • Whilst there is a recognition of the importance of the port there are concerns about how this is contributing to air pollution. Many also commented on the limited access to the waterfront. This is a fundamental part of the city's identity and heritage, but Southampton doesn't feel like a waterfront city. • There is a clear demand for local high streets, and people feel it is important to support business start-ups and local independent businesses, with some feeling that Southampton has too many chains and needs to be more individual and ensure money is going back into the local economy. • A large number of comments were made about the 'state' of the city; rubbish, poor pavements, homelessness and general upkeep and look of the city. People feel it is tired and run down and people lack pride in their local area. This is not the right impression to give to visitors and there is potential to make Southampton a destination, particularly with the cruise ship passengers. • Identifying enough space for new homes is a fundamental part of a local plan and most felt that adopting space standards was important, but this also extended to outside space.

	• The issue of high rise needs to be investigated further. Few are in favour of very high rise blocks, however lower rise of perhaps 4-6 storeys with good outdoor space seemed more acceptable. • Many feel the city has great potential but there is a need to be bold and take a different approach, at present there is a slight feeling of despair and little faith that change will happen. The full report on the consultation results is attached for information.
	Current stage and next steps
13.	With the initial consultation and its analysis complete, we are now at a stage in which we need to feed back the results to all stakeholders, both internal and external, and to progress with research and targeted engagement activities which will guide our review of existing policies. In doing so, we must identify the key strategic options for the city, all of which will need to be presented in a draft version of the plan and we aim to run a consultation on in 2021. Whilst we have been conducting research and review of policies throughout the summer, we have not yet conducted any targeted workshops. Plans for delivering a series of virtual workshops are currently being made with aims for delivery in Autumn 2020.
14.	Consultation results will be published to all groups who were invited to participate in the consultation and generally to the public, together with information about how the results will be used and when the next opportunity will be for people to have their say.
15.	The information gathered through this consultation will be used, together with other evidence, to help shape potential options of how and where growth can best be accommodated in the city in a way that addresses the key priorities identified through this consultation. This will involve a number of workshops with the Council's leadership team, elected members and key partners over the coming months. It is important that the policies we develop in this plan also support and enable the key corporate priorities of a greener and healthier city.
16.	Information gathered will also be shared across Southampton City Council and with relevant partners to help inform other priorities and decisions, as appropriate.
	Impact of COVID-19 pandemic
17.	Our initial consultation was disrupted by restrictions that were introduced in March 2020 due to the COVID-19 pandemic. Our immediate response was to extend the consultation deadline, to enable further digital promotion and more time for responses to be made. This has had an impact on the overall timetable of the Local Plan, as has the ability and willingness for certain stakeholders to be able to take part in engagement activities due to Covid-related priorities and in some cases being furloughed.
18.	In addition to this, and like many others, our timetable for the Local Plan (Appendix 1 of the Local Development Scheme, Dec 2019) is no longer considered up to date nor a reliable tool for monitoring performance. With Local Planning Authorities (LPAs) all over the country experiencing significant impacts to their plan-making processes, the Government issued communications encouraging all LPAs to take a proactive approach to

	engagement and continue as much as possible with their plan-making, even if adjustments to timetables are required.
19.	In response to the above, we have continued with in-house work on the plan and previously agreed to begin review of the timetable in September once impacts had settled. Unfortunately, this is still very much an ongoing issue with a lot of uncertainty and frequent changes to rules, restrictions and policies. However, we believe we should review our initial timetable, as well as our general approach to plan-making in this instance, factoring in all impacts and changes in the effort to formulate a more accurate, efficient and achievable timetable for preparation of the Local Plan. Once prepared, the amended timetable will be submitted for Cabinet approval and updated on our website
20.	The Council's Statement of Community Involvement is also in the process of being amended, in line with government guidance released this summer. This is to ensure that plan making can continue using a range of consultation methods even if restrictions mean that we are unable to carry out face to face meetings or events.
	Tackling childhood obesity in Southampton
21.	Two recommendations from the 'tackling childhood obesity in Southampton' scrutiny inquiry have been allocated to the Place directorate and relate directly to the Strategic Planning team and the Southampton City Vision Local Plan: 1. City Vision Local Plan – Incorporate guidance published by Public Health England - 'Using the planning system to promote healthy weight environments' in the developing City Vision to ensure that the facilitation of a healthy city is a priority in the city's development. 3. Restrict the growth in hot food takeaways – Include within the developing City Vision a policy that helps to manage the increase in exposure to takeaways in Southampton. Following consultation with the Chair of the Planning and Rights of Way Panel, the city should learn from other local authorities and adopt planning regulations that restrict the exposure of children to unhealthy snacks, beverages and hot food takeaways in and around schools and on routes to and from schools.
22.	The Strategic Planning team have been liaising with Public Health for the past year to ensure that health takes more of a priority in the plan-making process than it has done before. Both teams have agreed that the best way to meet the above aims and ensure that health is more embedded in our planning policy is to bring in a specialist officer to assist with or lead on these matters, depending on experience. The officer will be responsible for conducting research and producing technical evidence documents to support any proposed policies and to consider the implementation of a health impact assessment for the Local Plan as well as any other 'best practice' approaches that may be appropriate for Southampton.
23.	The job description for the post is due to be finalised in the coming months with aims for the officer to be recruited and begin work by the start of 2021. The works will then follow the stages to be set out in the updated LDS timetable, beginning with formulation of a 'draft plan with options' in 2021.

	Further details of timings can be provided, upon request, once an updated Local Plan timetable has been produced and approved.
RESOURCE IMPLICATIONS	
Capital/Revenue	
24.	The publication of the consultation results and changes to the SCI and LDS will not incur any financial charges or adverse resource implications. Both will be dealt with in-house and published directly to our SCC webpages.
25.	Public Health will be funding the planning officer for health post.
Property/Other	
26.	N/A
LEGAL IMPLICATIONS	
Statutory power to undertake proposals in the report:	
27.	As the Local Planning Authority, Southampton City Council has a statutory duty to produce a Statement of Community Involvement, under the Planning and Compulsory Purchase Act 2004. This document is required to be kept up to date and reviewed at least every 5 years. The document may be amended at any time the Local Planning Authority deems necessary.
Other Legal Implications:	
28.	N/A
RISK MANAGEMENT IMPLICATIONS	
29.	If the Council does not update the current SCI it will not be able demonstrate that it has used its principles in consultation, engagement and subsequent formulation of planning policies. If compliance cannot be demonstrated, SCC's new Local Plan could be open to challenge. If upheld, this could result in the new Local Plan being found 'unsound' by a Planning Inspector which means the plan cannot continue in the process to adoption.
30.	As stated above, amendments to the LDS Local Plan timetable will not incur any penalty by Government given that Covid-19 impacts have been experienced by all LPAs across the country.
POLICY FRAMEWORK IMPLICATIONS	
31.	The Statement of Community Involvement and Local Development Scheme are both statutory documents which Southampton City Council is required to produce, and keep up to date, in accordance with the Planning and Compulsory Purchase Act 2004.

KEY DECISION?	**~~Yes/~~No**
WARDS/COMMUNITIES AFFECTED:	All
SUPPORTING DOCUMENTATION	
Appendices	
1.	Southampton City Vision Consultation Results (Sept. 2020)

2.	Involving You in Planning (SCI) – Covid update
3.	Preparing Our Development Plans (LDS) (Adopted December 2019)

Documents In Members' Rooms

1.	N/A

Equality Impact Assessment	
Do the implications/subject of the report require an Equality and Safety Impact Assessment (ESIA) to be carried out?	**~~Yes~~/No**
Data Protection Impact Assessment	
Do the implications/subject of the report require a Data Protection Impact Assessment (DPIA) to be carried out?	**~~Yes~~/No**
Other Background Documents **Other Background documents available for inspection at:**	

Title of Background Paper(s)		**Relevant Paragraph of the Access to Information Procedure Rules / Schedule 12A allowing document to be Exempt/Confidential (if applicable)**
1.	N/A	

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Southampton City Vision, our new Local Plan.

Stage one consultation: Results.

Executive summary

The first consultation on Southampton City Vision, our new Local Plan, commenced on 10 February 2020. It was due to run for 10 weeks to 19 April 2020 but was extended to 31 May 2020 due to disruption caused by the Covid-19 pandemic.

The objective of the consultation was to start understanding priorities, ideas and aspirations for the city centre and local neighbourhoods from residents, businesses and anyone with an interest in the future of Southampton. It was also important that the consultation enabled wide engagement with a representative sample of the city's population and businesses by being accessible and relevant with supporting communication and promotion across a range of channels.

The consultation was predominantly carried out through an online survey and supported by a series of community drop-in sessions and workshops with a range of community, school and business groups. However, two of the community events and all workshops planned with schools and businesses were cancelled due to Covid-19.

Over 3,000 responses were received across all channels, the vast majority (2,670) being made via the on-line survey and over 270 attended the community events that took place. Of those who responded there is an under representation of young adults, in particular those aged 18-24 years. There is also a low number of responses from those representing a business or organisation.

The consultation was framed around six key challenges/themes. Of these 'environment and climate change' was considered to be the most important, closely followed by 'growth and investment' and 'getting around'. Respondents were also asked to identify priorities both in their local area and the city centre. The same three came out as most important locally and for the city centre:

- Parks, open spaces, nature and conservation
- Reducing air pollution and improving air quality
- Access to frequent and reliable public transport

Over 3,100 individual comments were received through the on-line survey, with further comments received by email. In general, the comments support and help us to understand the results of the structured questions.

In addition to the survey a 'Call for Sites' was conducted, a process whereby members of the public and businesses can submit development sites to be considered for allocation within the plan. 25 sites were submitted as part of this process, all of which are now being assessed for development potential as part of our Strategic Land Availability Assessment (SLAA). A draft version SLAA will be published at the next stage of consultation.

The information gathered through this consultation will be used, together with other evidence, to help shape potential options for the allocation of land, including where growth will be best accommodated, and the planning policies which will be used to manage development throughout the city. These options will be subject to further consultation.

Information gathered will also be shared across Southampton City Council and with relevant partners to help inform other priorities and decisions, as appropriate.

Purpose and objectives

The first consultation for Southampton City Vision commenced on Monday 10 February 2020 and had a planned closing date of Sunday 19 April 2020. This consultation forms part of our Regulation 18 consultation in line with the Town and Country Planning (Local Planning) (England) Regulations 2012. It has been prepared in accordance with Southampton City Council's (SCC) Statement of Community Involvement (2019).

Purpose of consultation:

- **Gather information – understand issues, no options at this stage**

This first consultation focussed on gathering information after which we can then start to consider potential options, there are two key elements to this:

1. Consultation responses – priorities, aspirations and the needs of residents and businesses
2. Call for sites – what land do we have available for development/redevelopment?

- **Awareness raising – starting the process of engagement**

The previous Regulation 18 consultation in 2016 had just 250 responses, with software indicating that a further 500 started a response but did not complete and submit. This clearly shows that some or all of the following were an issue:

1. Lack of awareness
2. Lack of interest
3. Lack of relevance
4. Not accessible (possibly due to language/jargon used or the length of the consultation)
5. Lack of trust – will views be listened to and acted on?

Overcoming each of these was an objective for this consultation. Making it relevant and interesting as well as being quick and simple to respond to, with an ongoing programme for feedback about the information collected and how it is used to help develop the plan.

Approach

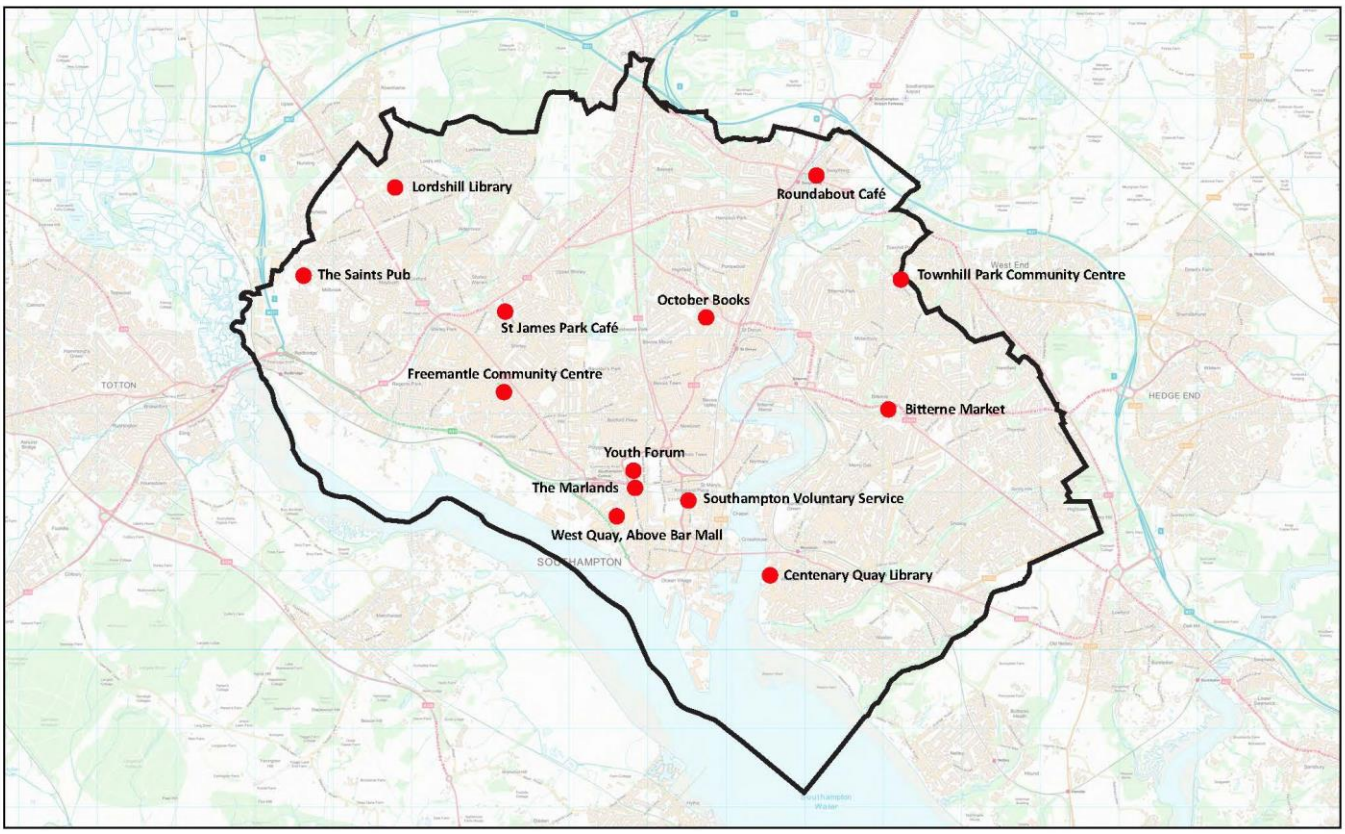
The consultation was predominantly carried out through an on-line survey, with a range of media used to promote and direct people on-line. This included direct emails to the following groups:

- Statutory consultees such as neighbouring authorities, service providers and agencies
- General consultation bodies; those who represents groups such as neighbourhoods, minority or special interest groups and developers
- Strategic Planning database which includes all those who have signed up to directly receive correspondence relating to Strategic Planning matters.
- SCC People's Panel, a group of around 2,500 residents which are representative of the population of the city.
- SCC 'Your city, your say' database which includes all those who have signed up to directly receive information about consultations being carried out by SCC.
- Businesses via Go Southampton, Chamber of Commerce, Hoteliers Association, Southampton Pound Forum and SCC suppliers.
- Schools via Southampton Education Forum

- Solent and Southampton University students via student unions

Face to face: Series of events held in neighbourhoods across the city

Roundabout Café	Swaythling
October Books	Portswood
St James Park Café	Shirley
Freemantle Community Centre	Milbrook
Townhill Park Community Centre	Bitterne Park
The Saints Pub	Redbridge
West Quay, Above Bar Mall	Bargate
Centenary Quay Library	Woolston
Lordshill Library	Coxford
The Marlands	Bargate
Bitterne Market	Bitterne



Location of Community Events across the City

Scale: NTS | Date: August 2020

SOUTHAMPTON CITY COUNCIL

These aimed to provide an opportunity for residents to get more information, including details about how to respond on-line as well as a chance to feedback about their priorities and what they feel needs improving.

In addition to these open sessions a number of workshops were scheduled with specific groups:

- Southampton Voluntary Service
- School workshops (SEN, primary & secondary)
- Health and Wellbeing Board
- SCC Elected Members

- Businesses:
    - Business South Conference
    - Regenerate South meeting
    - Southampton Pound Forum
    - Go!Southampton
    - Southampton Chamber of commerce meetings, raising awareness with the business community and gathering their views.
    - VentureFest Conference

Paper: Hard copies of the survey and supporting information were available in libraries across the city and within the reception of the Civic Centre. These were also available at all events (listed above) and paper copies were sent to SCC housing tenants and SureStart centres across the city.

Disruption caused by Covid-19.

On 16 March 2020, week six of the consultation (halfway through the consultation period), the UK Government started to place restrictions on public meetings and gatherings due to the Covid-19 pandemic. The country went into a full lock down on Monday 23 March 2020. This resulted in the cancellation of many of the planned face to face sessions with residents and businesses across the city.

Some groups have been more adversely affected than others by these cancellations, by virtue of the timing of events. Two of the 11 neighbourhood drop-in sessions were cancelled, firstly at The Marlands Shopping Centre in the city centre although a full day session had taken pace in West Quay shopping centre, also in the city centre, on March 4th. The final neighbourhood event to be cancelled was in Bitterne.

Workshops were scheduled in five schools across the city, all of these were cancelled. All face to face events with businesses and attendance at conferences were also cancelled. This means that there has been no face to face contact and promotion of the consultation with businesses or children and young people.

The government issued guidelines regarding public consultations on Local Plans in light of the restrictions:

How should local planning authorities respond to the coronavirus (COVID-19) pandemic when progressing local plans?

The government has been clear that all members of society are required to adhere to guidance to help combat the spread of coronavirus (COVID-19). The guidance has implications for local authorities and local plan-making, including how the public are engaged and the ability of authorities to comply with policies set out in their Statements of Community Involvement. This planning guidance focuses on how local authorities can review and update their Statements of Community Involvement and should be read in parallel with existing guidance on Plan-making, including paragraphs 34, 35 and 71. If there is any conflict, this guidance supersedes current Plan-making guidance until further notice.

Paragraph: 076 Reference ID: 61-076-201200513

Revision date: 13 05 2020

The consultation was carried out in accordance with the Council's Statement of Community Involvement (SCI) which was adopted in July 2019. However, in light on likely on-going restrictions, minor amendments will be made to the SCI to ensure it is fit for purpose for all subsequent consultations in the preparation of this plan.

Due to the disruption outlined above, the consultation period was extended to 31 May 2020.

Who responded to the survey?

In total 3,018 responses have been received. The vast majority (2670) were made via our online survey, 272 attended community events across the city and responded to key questions. Thirty responses were received by email, mainly from businesses and organisations who provided more detailed responses and feedback about specific issues or sites. Forty-five paper copies of the survey were completed as well as one easy read version. We cannot rule out the possibility that people could have responded online or via and paper form as well as attending an event, however the extent of potential double counting is minimal.

The majority of responses were received within the first six weeks of the consultation, before the country went into lockdown due to the Covid-19 pandemic, with a dramatic decrease in responses seen from late March. The consultation was extended by a further six weeks to allow more time to respond, however only around 250 further responses were made during this time.

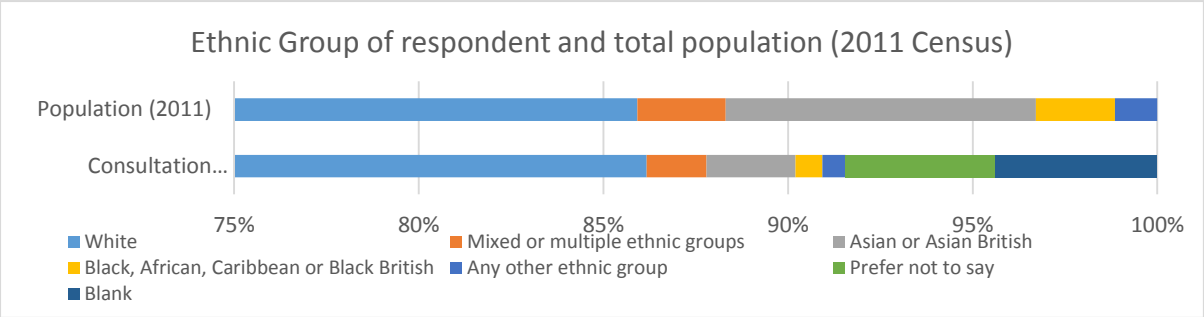
A number of questions were included in the online survey to help us to monitor respondents so we could establish if they represent the population as a whole, these were age, gender, ethnic group and postcode. Respondents were also asked if they were responding as an individual or if they represent a business or organisation.

The vast majority of online responses were made by individuals with just 86 stating that they represented a business or organisation. A further 30 email responses were received, the majority from organisations (15) and business (13).

Gender is broadly representative of the population as a whole, whilst for ethnic group, all but 'white British', appear to be under-represented. However there a couple of notes of caution:

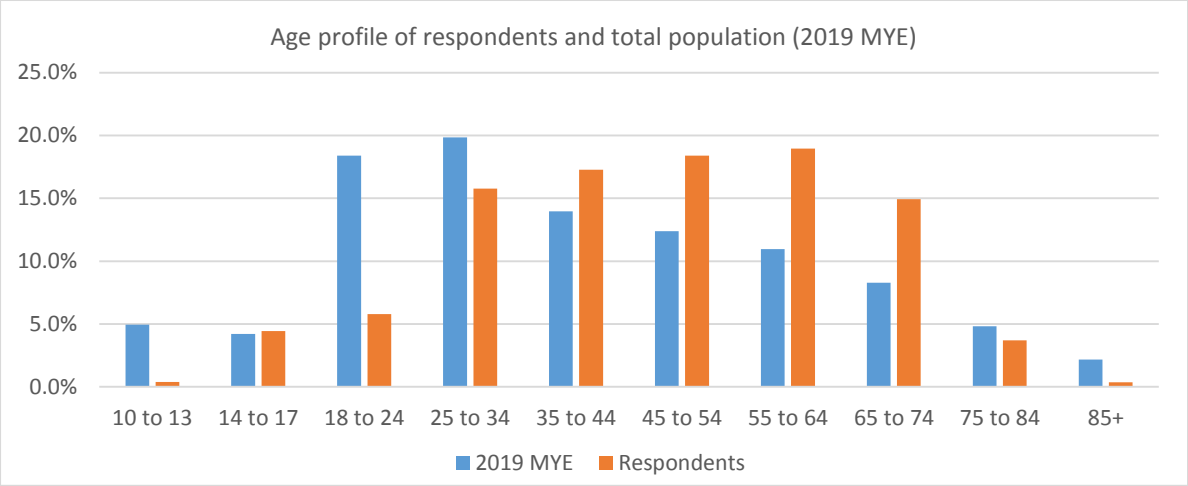
1. We can only compare with data from the 2011 Census, which is quite outdated now, and
2. The consultation gave the option 'prefer not to say' whilst some just left this blank, these responses account for over 8% of the total. Of these we do not know if they represent all ethnic groups of if this was a more common response for a particular group.

Chart 1: Ethnic group.



It is fairly typical for consultations to receive a larger number of responses from older people and fewer from younger people, and this one is no exception. In general, all age groups under 35 years are under-represented whilst those 35 and over are over-represented. The most significant difference between the respondents and the total population is the proportion aged 18-24 years. The chart below provides details.

Chart 2: Age profile

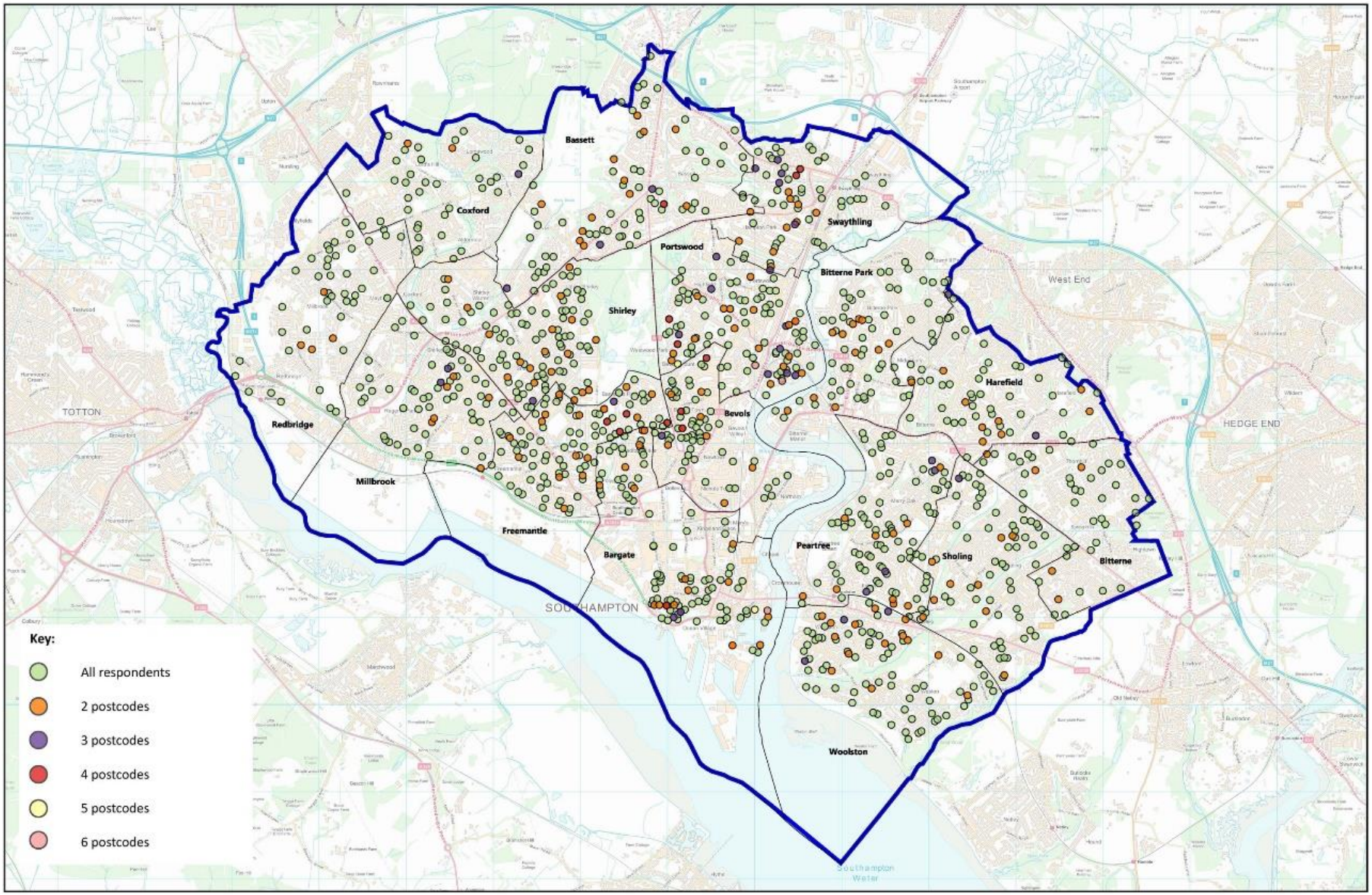


Due to restrictions that came into place in March we were unable to make any of the school visits that were scheduled (5 schools across the city), this has significantly impacted on the number of responses from those aged 10-13 years. It is also clear that we need to improve our communication and engagement with students and young people aged 18-24 years.

Respondents were asked to provide their postcode, so we were able to monitor if neighbourhoods across the city were all represented. This also allows us to establish if there are different priorities in different parts of the city.

Almost 59% provided adequate postcode information, which have been plotted on the map below. This shows that responses were received from across the city, with all wards being represented.

Whilst the map indicates a good spread of responses from across the city, when looking in more detail you can see that in certain parts of the city there are multiple responses from some postcodes. Postcodes have been allocated to wards, and this shows that the highest levels of response (as a percentage of the population) are from the wards of Portswood and Shirley, closely followed by Woolston, Peartree and Freemantle.



All respondents with multiple postcodes

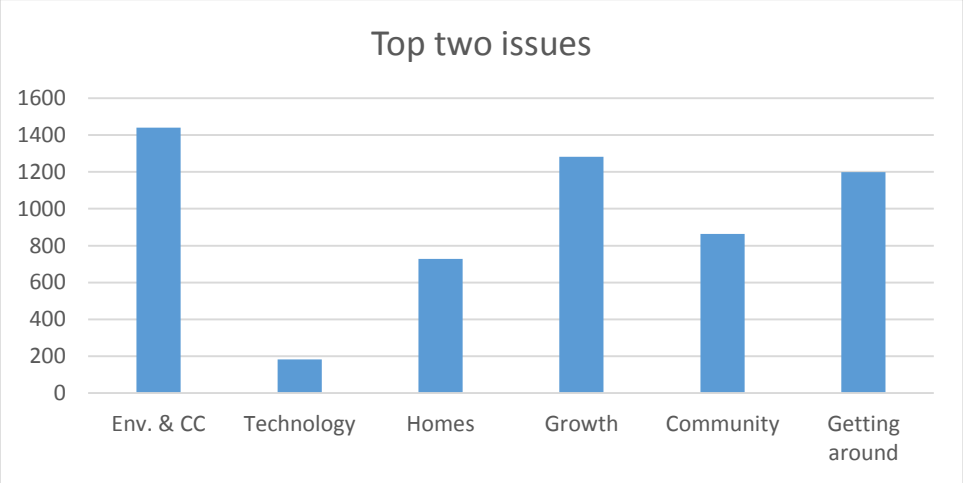
Scale: NTS | Date: August 2020

SOUTHAMPTON CITY COUNCIL

Top priorities

The consultation was framed around six key themes/challenges and we firstly asked which of these people felt was most important to them, only giving the option to choose two of the six.

Chart 3: Top Priorities



'Environment and climate change' is the most important issue with around half of all respondents choosing this as one of their top two. This is closely followed by 'growth and investment' and 'getting around'. 'Technology' was the least important with only around 6% of respondents choosing this as one of their top two. This may have been affected due to the low number of responses from younger people and businesses.

More detailed analysis shows that there are some differences depending on age, gender, ethnic group and location. Overall males thought that 'technology' was more important than females who felt more strongly about 'homes and community'. Technology was also much more important to the younger age groups. Over 58% of those who chose technology were aged under 45 years, however this group made up only 44% of respondents. Technology was also considered more important by black and minority ethnic groups, again this group is under-represented.

Despite these differences, 'environment and climate change' and 'growth and investment' are considered the top two priorities across all ages, gender and ethnic groups.

Respondents were asked to provide their postcode, so we are able to see if residents in different parts of the city have different priorities. Almost 59% of respondents provided full postcode information which have been allocated to a ward. The remainder were either outside of the city, gave only part of their postcode, or no postcode was provided.

The number of responses by ward varies from 48 in Bitterne ward to 168 in Portswood ward. We therefore need to treat this more detailed analysis with some caution as no ward has a statistically significant number of responses.

There are some differences between wards, but the majority of the wards have a similar top two. For 12 of the 16 wards 'environment and climate change' is one of the top two, seven wards also chose 'getting around the city' and six chose 'growth and investment'. Only two wards in the city had other top priorities; in Coxford 'homes' was in the top two and in Bitterne 'community' was in their top two.

Respondents were invited to answer further questions under each of these themes and given the opportunity to make comments. Analysis below is by theme:

Analysis by theme:

Neighbourhood and city pride, a sense of community

Local area:

An important part of this consultation was to establish what local facilities are being used and which of these are most important to people, but what actually matters most to people both in the local area and in the city centre? The consultation presented a list of 16 different facilities/services and asked respondents to choose the top 5 that they felt were most important, firstly in their local area/neighbourhood and secondly in the city centre. The results below are for all respondents.

Chart 4: Local area priorities

By far the most important things identified by respondents were 'parks/open spaces/nature and conservation'; 'reducing pollution and improving air quality' and 'access to reliable public transport' (all highlighted in orange on the chart above). Also important was access to essential services such as GPs and schools.

As well as these physical things people also said that feeling safe and having safe places to go and a sense of community was relatively important to them.

Late night entertainment, restaurants and shopping were considered less important in local neighbourhoods.

Differences by age group are as we would expect with 'late night entertainment', 'restaurants & cafés' and 'sport and leisure facilities' all rated as more important by the younger age groups. Although there are some differences by age, gender and ethnic group, the top three priorities remain the same.

The data has been divided by ward area to see if priorities vary across the city. Whilst there are some differences the top three highlighted above are fairly consistent. 'Cultural facilities' is in the

top five in the following wards: Bargate, Bevois, Bitterne Park, Harefield and Portswood. In Peartree and Redbridge 'Footpaths & cycle paths' are in the top five.

City centre:

The chart below shows the results for priorities in the city centre.

Chart 5: City centre priorities

The top three priorities remain the same for the city centre, whilst other things become more important than for local areas such as 'cultural facilities', 'shopping' and 'restaurants'. Also of importance is 'safety and a safe place to go'. These results further support the key priority of environment and climate change and will be important to consider as part of the Council's bid for UK City of Culture 2025.

When looking in more detail by age, gender and ethnic group, there are some differences. For gender these are minor and overall the top 5 priorities are the same for all. When looking by age group, as expected 'late night entertainment' is significantly more important to younger age groups. 'Parks, open spaces and conservation' and 'pollution and improving air quality' are amongst the top three across all age groups. For those aged under 18, 'shopping', 'jobs' and 'public transport' are also of great importance. For those age 18-34 'cultural facilities' feature in the top two whilst for all older age groups 'public transport' is in their top three.

'Pollution and improving air quality' and 'parks and open spaces' are also two of the most important things across all ethnic groups. 'Cultural facilities' are amongst the top three for black and minority ethnic groups.

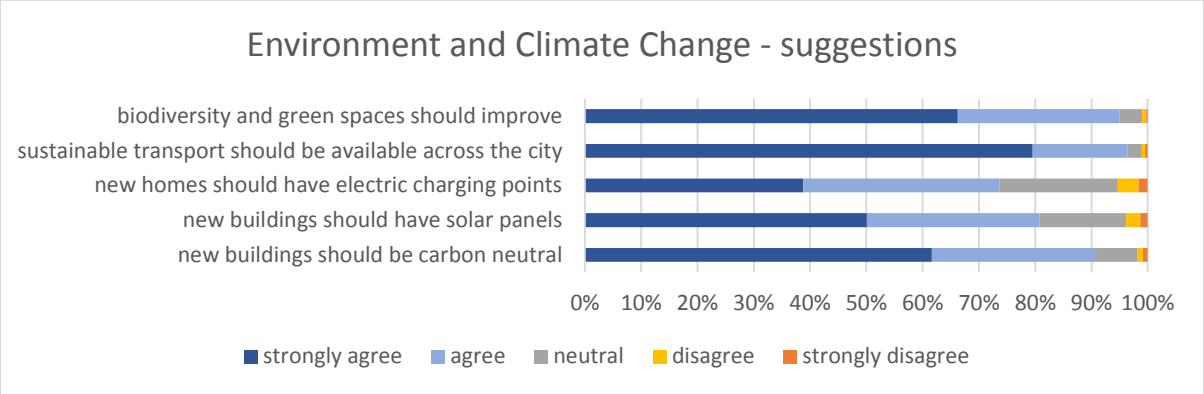
Analysis by ward does not show any significant differences; in nine of the 16 wards 'parks and open spaces' is the top priority; this is closely followed by 'reducing pollution' in most wards. Other priorities that are high on the list across all wards are 'cultural facilities', 'access to public transport' and 'safety and safe places to go'. Residents from Bevois, Bitterne Park, Portswood and Redbridge all felt that 'car-free/pedestrian zones' were an important priority for the city centre.

Environment and Climate Change

Around 56% of respondents answered the additional questions on environment and climate change. We asked people to tell us to what extent they agreed or disagreed with a number of options regarding parks and open spaces, sustainable transport and making new homes more environmentally friendly and sustainable.

All are positive suggestions so there are very low levels of disagreement. Respondents felt very strongly that sustainable transport should be available across the city and also felt that green spaces should be improved. Whilst there were strong levels of agreement with the suggestions for new homes, these where not considered as important. In particular, the suggestion that all new homes should have electric charging points had strong agreement from just under 40% of respondents, the chart below illustrates.

Chart 6: Environment and Climate Change



Almost 400 individual comments were received on this theme and these broadly support what is shown by the chart. The largest number of comments were about sustainable transport; people want to use their car less but feel that it is not easy to or possible to get across and around the city by other means at present. A large number also made comments about parks and green spaces, which are clearly valued, and people want these to be protected and improved. There were also a number of comments about increasing green space in the city, and that this should be an important part of any new development.

A number of comments were made regarding the suggestions for new homes and these were quite mixed. Whilst some felt that it was important to have electric charging points others felt that this was not practical with flats, on-street parking and the current cost of electric cars. Some also felt that this was not the answer as ultimately we should be reducing the number of cars on our roads, even if electric. Others also felt that there was a need to look at existing homes, not just new developments, as these make up the majority of housing in the city. Overall it seems that people think that any new buildings should be environmentally friendly. However, one big issue raised is the pollution caused by cruise ships, people feel that no matter what they do to contribute it pales into insignificance compared with pollution created at the port.

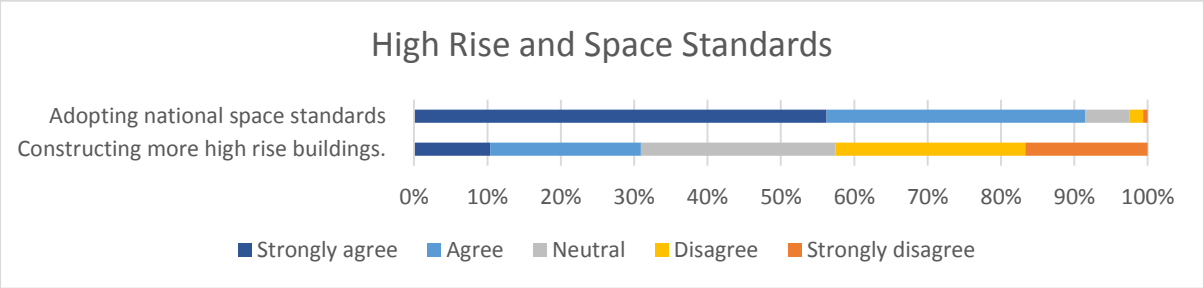
Homes for a growing and ageing population

Just over 42% of all respondents answered the additional questions about new homes. A key requirement of any local plan is to demonstrate that sufficient land is available to build the number of homes needed, which is based on a formula set by central government. The target for

Southampton City Vision to meet equates to approximately 1,000 new homes per year. This is a significant challenge for the city as space is limited so we need to consider more high-rise buildings but we also need to consider whether to adopt national space standards to guarantee the quality of new developments although this could results in each new property requiring more space to be built.

Over 90% of respondents agree or strongly agree that national space standards should be adopted. If implemented with a policy in our new Local Plan, new homes would have to conform to these standards. In contrast, people have more mixed views about high rise buildings. Over 40% disagree that more homes should be in high rise buildings, whilst 30% agree.

Chart 7: Space Standards and high-rise buildings.



When asked to consider homes for older people two possible options were suggested; new homes should be 'homes for life' and therefore adaptable to changing needs or homes should be built specifically for older people to help accommodate our ageing population. Overall people agreed with both; however the comments help us to understand this more fully.

Over 420 individual comments were made on this theme with over a quarter mentioning housing type. It was clear that there is a need to define 'high-rise' as many felt that 4-6 storeys would be acceptable but were less supportive of taller blocks. Comments on space standards extended to outdoor space as well as living space, with people highlighting the need for gardens.

Comments on homes for life and for older people were mixed. Some said that homes should be adaptable to meet changing needs whilst others felt that the biggest change over a lifetime is space as families grow and shrink, therefore resulting in properties being under-occupied by older people that could be freed up for families. This would only be a realistic option if appropriate homes were available to enable older people to downsize. The majority felt that communities should be multi-generational.

Technology

Just under 40% of respondents answered the additional question on technology with 280 providing comments on this theme. This theme also received the lowest level of response in terms of people's top two priorities. However, it may be due to the fact that there have been a low number of responses from children and young adults and from businesses, groups that we'd expect to have an interest in this theme.

When asked if people felt that Southampton was a modern city with technology that supports them, the majority (46%) neither agreed nor disagreed.

A wide range of comments were received on technology but there were some key themes. People felt that technology should be used to improve public transport, integrating all forms across the city,

with live updates and a single contactless ticketing system. Wi-Fi, broadband and 5G across the city; consistent coverage, and greater Wi-Fi availability in the city centre. Some felt that technology could be better utilised for providing information and entertainment in the city. There was also a strong feeling that technology could be used to support people, but the prime objective should be on the person and not to introduce things 'just because we can'.

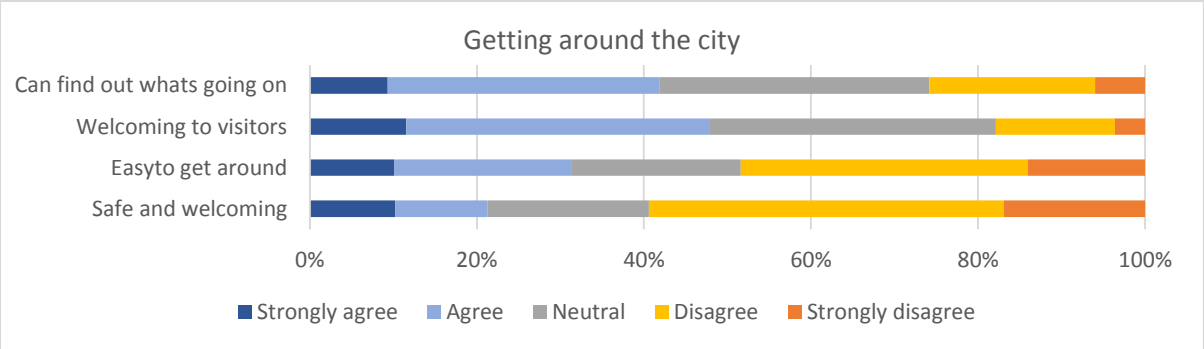
Whilst the use of technology will play an important part in the future of the city, it is clear that this means many different things to different people. There is a need to develop more specific examples of applications. In terms of the local plan, we need to ensure that appropriate infrastructure is planned for to enable the improvements that are needed.

Getting around the city

Almost 57% of respondents answered the additional questions on this theme, higher than for any other theme, it also received the highest number of comments at 560. This is a broad topic covering public transport, waking and cycle networks, accessibility for all as well as feeling welcome and knowing what's going on in the city.

Around 45-50% agreed that it is easy to find out what is going on in the city and that it is a welcoming place for visitors. In contrast, 50-60% disagreed with the statements that it was easy to get around the city and that the city felt safe and welcoming, the chart illustrates these details.

Chart 8: Getting around the city.



A significant number of comments on this theme relate to public transport, the cost, connectivity and the role it plays for people visiting the city and the first impression it gives. Some feel that some of our public spaces do not allow all people to move around the city safely and with ease, with others saying that the city looks tired and run down and therefore it is not a welcoming place. In terms of what is going on in the city, some feel that not enough is done to promote events and the city as a destination. This was also mentioned under the 'technology' theme, how big screens and information could help.

There are mixed views on cycle routes, some feel that more needs to be done whilst others have been quite critical of cycle routes that have been introduced. The Avenue was mentioned numerous times with perspectives from both cyclists and motorists, both feeling that it is confusing and unsafe.

The Council's Transport Plan has only recently been adopted with a great deal to be implemented over the coming years. Comments received through this consultation will be shared with transport colleagues so they can consider them.

Growth and investment in the city

This theme was second highest in terms of people's priorities, and around half of all respondents answered the additional questions on this theme. There were three sets of questions, one on local highstreets, aimed to establish the frequency of use of a range of shops and services locally. The second set of questions was about cultural and leisure facilities and the final set was about businesses in the city and whether standards/requirements should be set for businesses and organisations looking to locate to Southampton.

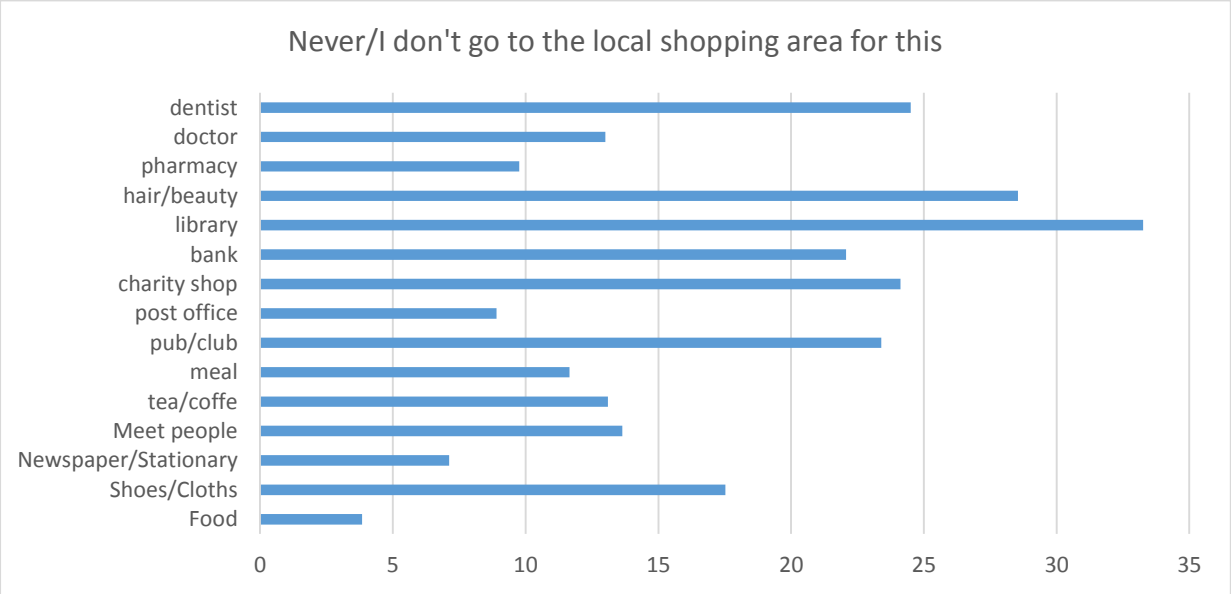
Local high streets

In 2016 Southampton City Council commenced an initial consultation on a new Local Plan, and whilst the response rate was low there was a clear message regarding local neighbourhoods. Respondents felt that investment in the city was focussed on the city centre and there was a need to improve local facilities. With this in mind we needed to establish what local facilities are being used and which of these are most important to people.

Around half of all respondents answered the additional questions on frequency of use of high street facilities. The results show that a good range of local facilities are being used on a regular basis. The regularity of use is as expected with most people shopping for food on a weekly basis, other shopping (newspapers, stationary etc.), meeting friends or going for tea/coffee are most likely done every 2 weeks or monthly whilst services such as doctor and dentists tend to be visited every six months. It is also important to look at those local facilities and services which people state they never use or don't use in their local area.

On average, across all services and facilities 17% are never visited/not used in local area, which is encouraging as there is clearly a demand from the majority. Least used are libraries with 34% of respondents never using or not using locally. We must consider that this may also be partly a reflection of the availability of various shops and services. The chart illustrates.

Chart 9: Percentage of people never using local facilities



Whilst some analysis has been carried out by ward, these areas don't necessarily reflect the local district centres and their catchment areas. Therefore, more detailed work on each of the district centres will be carried out through the development of the plan. This will include these initial

consultation results, together with profiles of centres showing the shops and facilities that are available. This will help us better understand local needs and shape any further engagement with residents. This will also support the emerging Economic & Green Growth Strategy that has identified the challenges faced by the city centre and district centres and their interrelationship as a key issue to be addressed.

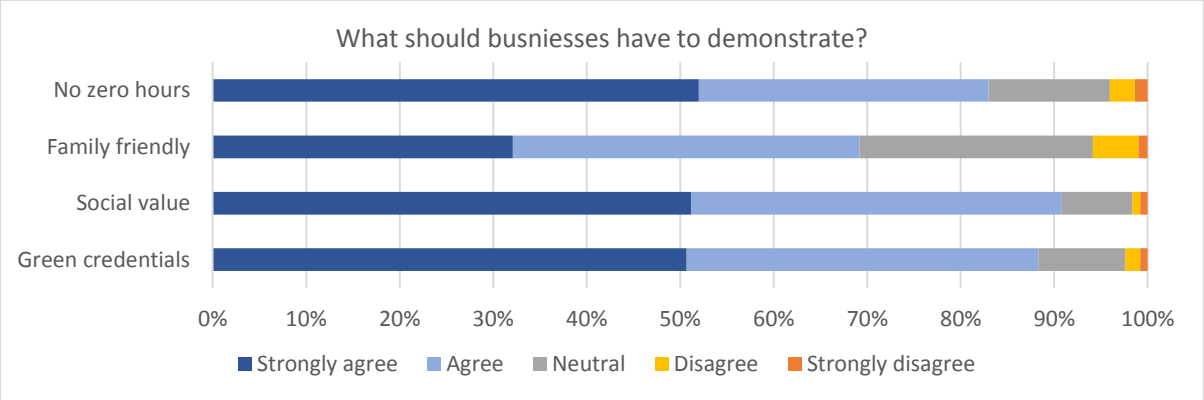
Culture and leisure

Almost half of all respondents answered the additional question on culture and leisure which asked if people felt that the city had good cultural, creative, sport and leisure provision. Over 40% agreed, with almost 45% agreeing that there were good sport and leisure facilities. Around a third neither agreed nor disagreed. It is important to consider the comments made in the section on 'getting around', where some said not enough was done to promote things going on in the city and they often found out about them after the event.

Businesses and organisations

Southampton has benefited from around £3bn of investment since 2012 with several major city centre projects being completed. Good facilities, workspaces and homes all make the city a more attractive place for businesses to locate to and people to move to, which in turn brings further investment. However, should we be discerning about what businesses and organisations operate in the city by setting standards about how they contribute to tackling climate change, add value to the local community and look after their employees? The consultation asked people to say if they agreed or disagreed with a number of suggestions.

Chart 10: Suggestions of standards for businesses and organisations.



These were all positive suggestions and with a high level of agreement. Demonstrating family-friendly policies was not seen to be as important as the other suggestions. This could be because this is not a new idea and many businesses and organisations already practise this approach.

This is a broad theme and over 300 individual comments were made through the on-line survey. A range of issues were raised including support for businesses, in particular start-ups and small independent traders. Lots of suggestions and comments were made about the state of sport, leisure, cultural, arts and entertainment facilities and how these could be improved. There was also a range of comments about businesses in the city and the promotion of environmentally friendly practices, support for local communities and improved conditions for employees. Some also felt that many jobs in the city are low skilled, and therefore lower paid, and that more could be done through working with the universities and improving skills.

Further work with businesses is needed due to the low number of responses from this group. It is important that we understand their changing needs, especially in light of Covid-19 and any potential long-term impacts to their businesses. Of particular importance to the Local Plan is the need to understand the amount and types of spaces that are required by businesses to enable strong local economic growth and the efficient use land.

Summary

Responses:

There has been a good response to this first consultation, and overall the results can be relied upon as being statistically significant. The more detailed analysis by age, gender and ethnic group has shown that there are no significant differences between groups and overall priorities remain the same.

There are gaps in terms of who has responded which will need to be addressed through further engagement, this includes businesses and young adults.

Local Areas:

Analysis by ward has also shown little difference between areas, with top priorities remaining the same. More work will be carried out on each of the district centres which will include the range of local services available, understanding the priorities by area and the use of services.

Key messages:

- Environment and climate change is the top priority. The comments show that there is a strong will for people to have more sustainable and environmentally friendly options, particularly when it comes to transport, but there is a feeling that these options are not always the easiest for people to take, and they should be. Neither public transport nor cycle/walking routes are currently adequate to deter the use of cars.
- Some felt that more radical decisions should be made such as the city centre being completely car free.
- Many respondents expressed concerns that increased development could put pressure on the city's parks and green spaces. A Local Plan must protect these areas and we need to be clear in communicating this message to the public to address these concerns.
- Whilst there is a recognition of the importance of the port there are concerns about how this is contributing to air pollution. Many also commented on the limited access to the waterfront. This is a fundamental part of the city's identity and heritage, but Southampton doesn't feel like a waterfront city.
- With regards to future development there is a clear demand for local high streets, with most respondents accessing a number of their services on a regular basis. More detailed analysis by locality will help us further understand differing needs and priorities across the city.
- People feel it is important to support business start-ups and local independent businesses, with some feeling that Southampton has too many chains and needs to be more individual and ensure money is going back into the local economy.
- A large number of comments were made about the 'state' of the city; rubbish, poor pavements, homelessness and general upkeep and look of the city. People feel it is tired and run down and people lack pride in their local area. This is not the right impression to give to

visitors and there is potential to make Southampton a destination, particularly with the cruise ship passengers.

- Identifying enough space for new homes is a fundamental part of a local plan and most felt that adopting space standards was important, but this also extended to outside space.
- Whilst in general the population is ageing, Southampton still has a significant proportion of children and therefore a need for family housing. Many commented about the need to provide housing for older people which is attractive to them so they choose to downsize, making large homes available. That said, most felt that older people should not be segregated in the process and multi-generational communities were important.
- The issue of high-rise buildings needs to be investigated further. Whilst people understand the need, given the pressure on space, few are in favour of very high-rise blocks. However, lower rise of perhaps 4-6 storeys with good outdoor space seemed more acceptable.
- Many feel the city has great potential but there is a need to be bold and take a different approach, at present there is a slight feeling of despair and little faith that change will happen.

Next steps

1. Further specific reports to be prepared on the following:
    - Students
    - Children and young people
    - Local, district and town centres
    - Businesses, including report from Go! Southampton.

2. Publish results of the consultation to all who responded and to the wider public. It is important that we continue to be open and honest about the information we are gathering and how it is being used to develop options for delivering the development needs of Southampton over the next 20 years and beyond. Continued work with the Communications team to ensure appropriate channels are used to reach communities across the city.

3. This consultation was extended due to disruption caused by the Covid-19 pandemic. This has impacted on the overall timetable for the plan set out in the Local Development Scheme which was approved by Cabinet in December 2019. This timetable will need to be reviewed, updated and approved by Cabinet before publication.

4. Working with colleagues across the Council together with partners to understand the consultation results and develop options for a draft plan. This will include workshops with the Senior Leadership Team and Members, both of which will need to make decisions about these options.

5. Continue to work with colleagues to ensure a joined-up approach to the delivery of the 'Place Shaping' theme of the Corporate Plan, as well as its wider objective for Southampton to become a greener, healthier and fairer city.

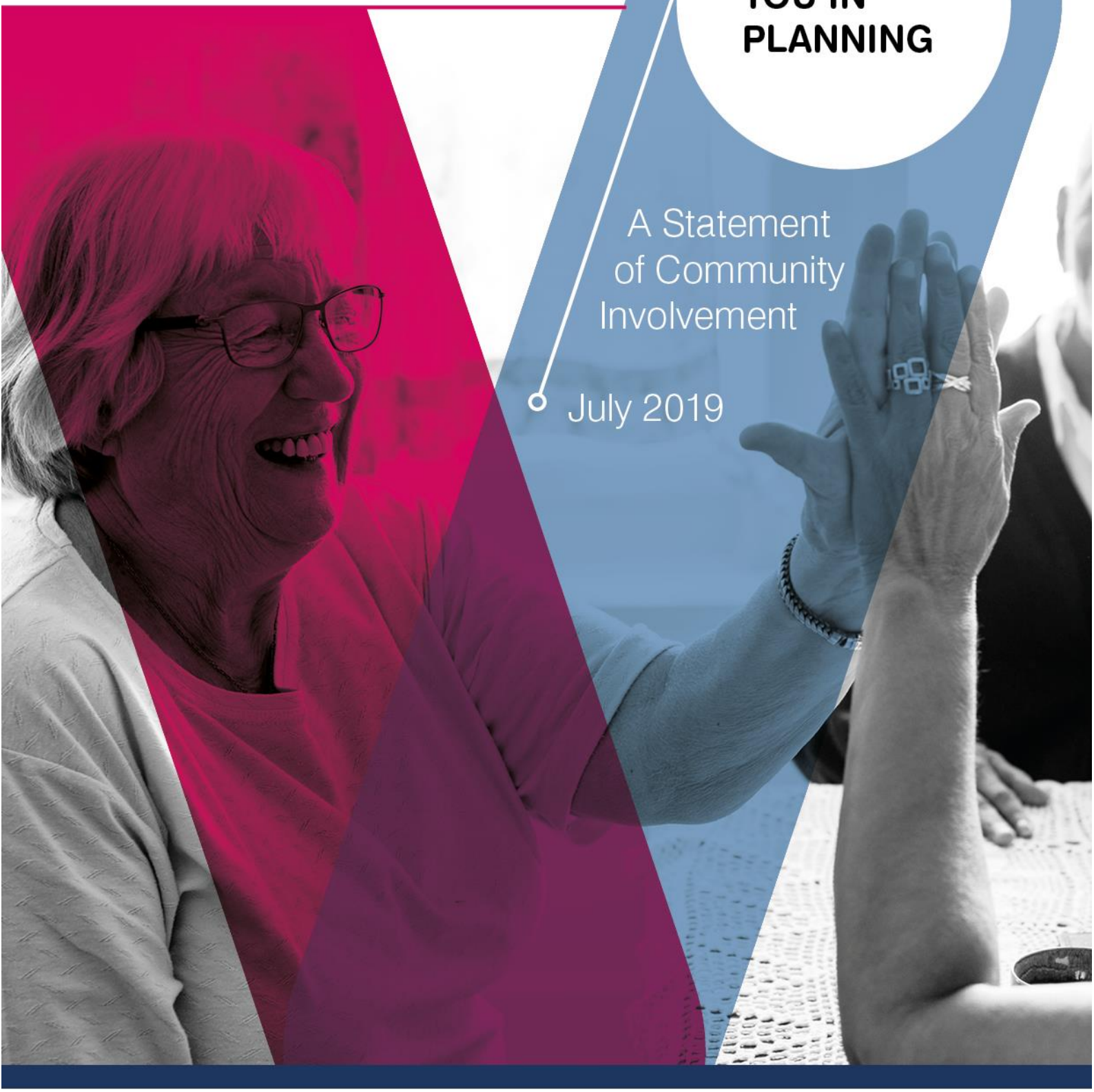
6. Continue to work with colleagues to ensure that the results of this consultation feed into wider service delivery, where appropriate, that is outside of the planning systems and/or place shaping per se.

SOUTHAMPTON
CITY VISION

INVOLVING YOU IN PLANNING

A Statement of Community Involvement

July 2019



SOUTHAMPTON CITY COUNCIL

CONTENTS

INVOLVING YOU IN PLANNING

A Statement of Community Involvement

Introduction

Planning affects us all; the homes we live in, the facilities we use, the different ways we travel, and the places we go to work and to school. These are all the result of planning decisions, ones that you have the opportunity to comment on and contribute towards.

As the local planning authority for Southampton, Southampton City Council is responsible for making decisions about future development across the city. However, the Council recognises that residents, businesses and other organisations have a valuable role to play in helping shape plans and provide new ideas. If you live in the city you know your community, what works well and what needs to be improved. Businesses, local groups and organisations all have information and ideas to help shape future development in Southampton. By taking part you can ensure that the Council understands what you feel is best for you and Southampton, when making planning decisions.

What is this document?

The Statement of Community Involvement (SCI) is a legal requirement under the Planning and Compulsory Purchase Act 2004 in connection with the preparation of other plans. One of its main purposes is to make sure residents, businesses and other stakeholders are clear about how and when they can have their say in planning matters. It is also important that the SCI is reviewed every five years to ensure it reflects the latest legislation and methods of consulting.

This SCI sets out how and when the Council will seek the views of local people, businesses and key organisations on local planning matters, including both plan-making and decision-taking. This SCI also reflects the 'Southampton Compact' which was agreed between statutory agencies and their voluntary and community partners in 2013. However, whilst the Compact recommends a formal consultation period of a minimum of 12 weeks, this SCI follows the requirements in the Planning Acts, which state that there should be a minimum of 6 weeks for formal consultation together with more informal ongoing consultation during the preparation of a plan.

Why it is important to get your views…

Whilst there is a legal obligation to consult on a range of planning matters, Southampton City Council also recognises the value of involving local people in place shaping. After all, it is these people who know most about their neighbourhoods and it is the local communities that are most likely to be affected by development proposals in their areas.

Involving local people in the consideration of planning matters for their area means that Southampton City Council, as the local planning authority, can:

- benefit from residents' detailed local knowledge, expertise and their perspectives;
- work towards gaining greater community support for, and ownership of policies, strategies and decisions;
- try to help communities be more informed, involved and committed to the future development of their area; and
- ensure it is planning for development that improves quality of life and the built and natural environment.

How the Council will consult with you…

Consultation Principles:

The purpose of consultation is to ensure people who may be affected by planning decisions, at all scales of development, have the opportunity to have their say on proposals so that the local council can fully consider comments received, alongside all other evidence, when making decisions. Southampton City Council takes its duty to consult very seriously and all consultations are carried out following these key principles:

- **Inclusive**: so that everyone in the city has the opportunity to express their views.
- **Informative**: so that people have adequate information about the proposals, what different options mean, and a balanced and fair explanation of the potential impact.
- **Understandable**: by ensuring that the language used to communicate is simple and clear and that efforts are made to reach all stakeholders, for example to those for which English is not a first language, or to people that may have a disability.
- **Appropriate**: by targeting people who are more likely to be affected and using a more tailored approach to gathering feedback, complemented by a general approach to all residents, staff, businesses and partners.
- **Meaningful**: by ensuring decision makers have the full consultation feedback information so that they can make informed decisions.
- **Reported**: by letting consultees know what was done with their feedback.

Consultation methods:

Understanding the diversity of local communities is critical to ensuring that the right techniques are used to consult with them, these will vary from group to group and person to person. There are a wide range of community networks that the Council can utilise in order to effectively contact communities, in particular those that are seldom heard from.

'Involving You In Planning' is a flexible framework which allows different approaches to consultation so as to respond to the individual circumstances at the time – including the nature of the plan being prepared, the potential issues involved, and the needs and preferences of the communities, groups and organisations likely to be affected. *In addition*

there is currently a need to be prepared to consider further alternative methods of consultation due to the impacts of the Covid-19 pandemic.

Following the outbreak of Covid-19 the government introduced measures to help combat the spread of the virus, which all members of society are required to adhere to. The Ministry for Housing, Communities and Local Government (MHCLG) has also issued Covid-19 guidance which states that: The local planning authority should make any temporary amendments that are necessary to their SCI, to allow plan-making to progress, and continue to promote effective community engagement by means which are reasonably practicable.

The methods of consultation within this SCI have been updated, in light of this guidance to include further options should any restrictions be in place. Rather than creating temporary arrangements that may need numerous updates over the coming months and years, additional methods have been included, which allow for greater flexibility and are in keeping with the approach of the adopted SCI, as described below.

We may use any of the following methods based on the needs of the individual consultation. In choosing methods, we will ensure these are proportionate to the scale and impact of the proposal, appropriate to those we need to consult and within resources available. *We must also consider alternative approaches should government restrictions mean that some options are not available at the time.*

This is not an exhaustive list and we continue to work with colleagues and established local community networks to understand the best ways to involve communities.

DIGITAL	Website Emails: 'stay connected' Social media People's Panel *Virtual exhibitions* *Virtual workshops* *Online question & answer sessions*
HARD COPY	Letters Local press Public buildings (e.g. Civic Centre/Libraries) *additional copies provided to enable copies to be quarantined after use, in line with local procedures.* *Letters to those 'shielding'/'clinically vulnerable'* *Documents distributed to community representatives, including ward members* *Documents available on request (for those without internet access)*
FACE TO FACE*	Meetings Exhibitions Ward members Workshops

**any face to face engagement or consultation activities will be fully risk assessed at the time to ensure they are 'Covid safe'.*

What will be asked?

In order for consultation responses to be valid we will require the names and addresses of consultees, and the organisation they represent (if applicable). In addition to this we may, if appropriate, ask for individuals to provide information about themselves such as their age group, gender, ethnic group or other details. This information will be used only to help understand who is responding to consultation so that we can check if they are representative of the population as a whole. If we find that the consultation is not hearing from certain age groups or minority groups, this information can then help us to know where to focus improvements. We may then choose to use different methods to engage with the people we have not heard from.

What will the Council do with comments received?

This document not only sets out the Council's commitment to involve local people and stakeholders in plan-making, but also provides a commitment to ensure that this information is carefully considered alongside all other evidence when making planning decisions.

There are two processes for dealing with comments received, one which is followed for comments made on local plans and supplementary planning documents and a second process for dealing with comments made on planning applications. The details for each are set out below.

What sort of plans can you comment on?

As the local planning authority, we have a duty to consult within two different areas of the planning process:

1. **Plan-Making and Place-Shaping**:

    - **Development Plan Documents (DPDs)** – the Planning and Compulsory Purchase Act 2004 requires all local planning authorities to develop what is called a 'Development Plan' for the area. The Development Plan is a main considerations when determining planning applications for development proposals in the city. This means that it has to be considered when making a planning decision.
      Development Plans can consist of an individual planning document or a series of planning documents however, as a whole, these documents should provide a vision and framework for the future development of the area. More specifically, they must set out the council's priorities for land use and development and provide a comprehensive set of policies to address both the strategic priorities and non-strategic planning matters across the entire area. For us, the area the Development Plan must cover is the entire city.

- **Supplementary Planning Documents (SPDs)** – local planning authorities can choose to develop these documents as a means to provide further details, guidance and principles for development, beyond that of the policies set out in the Development Plan. SPDs can be used to provide further guidance for development on specific sites or on particular issues, such as design. SPDs are also a main considerations and must also be considered when making a planning decision.

2. **Development Management:**

    - **Planning Applications** – for a specific development at a specific location, which can range from householder extensions to proposals for larger schemes such as new shopping centres, offices and housing developments, a planning application must be submitted for determination, having regard to the policies set out in the development plan and any other main considerations.

There are different requirements for consultation for each of these areas of planning practice. This document sets out who the Council will consult with for each of these and how.

THE DETAILS…

Development Plan Documents

Developing a development plan document is a lengthy process as it requires a great deal of technical evidence and input from a wide range of organisations and groups, which is ongoing as the plan is developed. It is important that we take the time to fully consider all evidence and involve the right organisations and local communities as the decisions will have a lasting impact on the city.

There is ongoing engagement and exchange of information with key organisations together with periods of formal consultation during which anyone can make comments. These consultations happen firstly when the plan is at an early stage, when we are looking at the local issues and possible options for the future. Secondly, we consult once there is a draft (or pre-submission) plan. Finally, we may need to consult on changes to the plan made as a result of recommendations by the inspector during the examination process.

The following sets out the key stages in the development of a development plan document. Please note that some of these stages may be combined or overlap as appropriate at the time.

RESEARCH, INFORM & INVOLVE	• Collect evidence • Work with organisations and share information • Identify key issues • Discuss potential options
CONSULTATION	• **Establishing issues and aspirations for the city** • **Understanding the needs of residents and businesses** • **Identify the housing and employment spaces needs**
RESEARCH, INFORM & INVOLVE	• Consider feedback from consultation • Collect further evidence • Ongoing discussions with relevant organisations • Identify preferred options and prepare draft plan
CONSULTATION (if required)	• **How are needs best delivered within the city**
PUBLISH PLAN (PRE-SUBMISSION PLAN)	• Prepare and publish the plan based on the evidence and views collected
CONSULTATION	• **Consultation on published plan** • **Can it deliver what is needed?** • **Have the best and most appropriate options been chosen?** • **Have all the right people been involved?**
REFLECT AND REFINE	• Consider feedback from consultation • Update and amend where necessary
SUBMIT	• Submit final plan for inspection

INSPECT	• Examination held in public to discuss the soundness of the plan, before an independent inspector • Opportunity for organisations, groups and individuals who have raised objections to the plan to have their say and present evidence to the inspector
CONSULTATION (if required)	• **Consult on any modifications to the plan**
FINAL VERSION PLAN	• Final version of the plan, which incorporates any changes recommended by the inspector
ADOPT	• Council adopts the plan once the Inspector has found it to be sound

Neighbourhood Plans

Although neighbourhood plans form part of the development plan once 'made' (or adopted), they follow a slightly different development process to the above. Neighbourhood plans are developed by the neighbourhood forum (NF) representing a specific area but the local planning authority (LPA) has responsibility for certain parts of the process. This process is detailed below.

APPLICATION FOR DESIGNATION	• Prospective NF sends application for designation to the LPA for approval (unparished areas only) • Prospective NF applies to LPA to designate neighbourhood area
CONSULT	• **LPA consults on NA and/or NF (6 weeks)** • **LPA considers feedback from consultation**
DESIGNATION	• LPA decides whether to designate (approval required to continue in neighbourhood plan process)
ENGAGEMENT & DRAFT PLAN	• **NF conducts initial engagement to identify issues and aims for the plan** • **NF gathers baseline data and evidence** • **NF identifies and assesses options** • **NF conducts ongoing engagement with key stakeholders whilst developing a draft plan and any necessary background/evidence documents** • **NF ensures the draft plan is compliant with relevant planning legislation** • **LPA provides ongoing support and assistance, where required**
CONSULT	• **NF conducts pre-submission consultation according to statutory requirements** • **NF considers feedback from consultation and makes appropriate amendments**
SUBMISSION TO LOCAL PLANNING AUTHORITY	• NF submits proposed neighbourhood plan to the LPA

INSPECT	• LPA checks compliance with planning legislation, national planning policy and local planning policy (LPA must agree the plan complies to progress)
PUBLICISE & CONSULT	• **LPA conducts formal publication and consultation according to statutory requirements** • **LPA gathers representations and feedback from the public, stakeholders and other interested parties**
EXAMINATION	• LPA submits plan for independent examination • Inspector examines the plan and issues recommendation to LPA stating whether modifications are required and if the plan may progress to referendum • NF and LPA work to address required modifications, if necessary
REFERENDUM	• **LPA publishes notice of referendum** • **Polling carried out** • **Results declared**
ADOPT	• If the referendum result is positive the LPA adopts the plan and it becomes part of the Development Plan immediately

Who will the Council consult?

The Development Plan affects the whole city and must set out a framework for future development in the long-term. This means that it is important to ensure that engagement and consultation is designed to enable residents, businesses and organisations to give their views if they wish to do so. This includes younger people and children as plans will affect their future.

Those we will consult with can be divided into three key groups:

i. **Specific Consultation Bodies -** this group includes all of the key organisations and agencies such as neighbouring councils (under duty to co-operate), Highways England, the Environment Agency, National Rail, Natural England, relevant communications companies, health authorities, electricity and gas companies, sewerage and water companies, full list of consultation bodies shown in Appendix 1.

ii. **General Consultation Bodies** – those that represent local groups / communities, such as:
    a. Developers and agents
    b. Voluntary groups and residents associations
    c. Businesses groups and forums

iii. **Individual residents and local businesses**

Details for each of these groups are set out in Appendix 1.

Supplementary Planning Documents

The process for introducing an SPD is similar to DPDs as detailed above. There is a need to gather evidence and engage with relevant stakeholders, however there is just one stage of formal consultation when anyone can make comments on the document, and there is no independent examination by an inspector from the Planning Inspectorate. The stages of this process are set out below.

RESEARCH, INFORM & INVOLVE	• Collect evidence • Work with organisations and share information • Identify key requirements • Discuss potential options
PUBLISH SPD	• Prepare and publish the plan based on the evidence and views collected
CONSULTATION	• **Consultation on published document** • **Does it provide clear and appropriate guidance?** • **Have all the right people been involved?**
FINAL VERSION PLAN	• Consideration of representations – are any changes required? • Prepare final version of the plan, which incorporates any necessary changes
ADOPT	• Council formally adopts the document

A supplementary planning document will affect different people depending on its content, therefore consultation may be targeted at those living in a particular part of the city or with a specific interest in the topic or issue. However, anyone can comment during the formal consultation stage therefore we will use a range of methods and engage with those in each of the three groups set out above, proportionate to the scale and impact of what is set out in the SPD.

What happens to comments you make during these consultations?

All comments will be fully considered and changes will be made to the plans where appropriate. We may also contact individuals or organisations to discuss the views and suggestions that they have made.

The Council has a duty to balance the following:

- Your comments
- Comments received from other people/organisations
- Existing evidence
- Legal requirements
- Other local and national policies, needs and interests.

Consequently, there will be circumstances where the Council does not alter the plan to accommodate the views of a respondent. However, in the case of a DPD, there is a further opportunity for people to put forward their views, through the public examination process.

Comments made during the development of a plan will be taken into account before any subsequent version is published.

All written comments received during the formal consultation stages will be:

- Formally recorded
- Acknowledged within 15 days (where required)
- Made available for others to see (where required)
- Sent to the Planning Inspector (where required)

A summary of the main issues raised during the consultation and how these have been taken into account will be published as soon as it is practical to do so. This may be several months after the consultation period.

Planning Applications:

Most people become involved in the planning system when an application for development is submitted that may have an effect on their property or area, and they want their views to be taken into account when the application is decided.

The Council's Development Management Team and Planning Committee are responsible for the processing of planning applications within Southampton. There are two distinct stages when local people can become involved:

i. **Non-statutory pre-application consultation** carried out by the applicant/developer before they submit the application

The National Planning Policy Guidance (NPPG, updated March 2019) states that local planning authorities have a key role to play in encouraging other parties to take maximum advantage of the pre-application stage. They cannot require that a developer engages with them before submitting a planning application, but they should encourage take-up of any pre-application services they offer. They should also, where they think this would be beneficial, encourage any applicants who are not already required to do so by law to engage with the local community and, where relevant, with statutory and non-statutory consultees, before submitting their applications.

At this stage applicants may wish to carry out a consultation exercise in order to understand public views on their proposal, and therefore be able to address any major issues, before they submit the application.
Though developers are encouraged to engage with the local community before submitting the application, this is not a legislative requirement and not something carried out by the local authority.

Notwithstanding the above, the Council encourages developers running pre–application consultation to:

- Agree the consultation approach with the Council, including considering what is required to involve seldom heard groups or groups that will particularly be affected by the changes;
- Inform local people about the details of the scheme and be clear what elements can be influenced by making comments;
- Clearly identify any changes made as a result of comments based on sound planning reasons; and
- Submit a statement with the planning application outlining the community involvement that has been carried out, the comment received and any changes made as a result.

ii. **Consultation on the planning application**
Once a planning application has been received and it has been formally checked that all the necessary information has been submitted (validated) and the application is registered, the local planning authority is required (by planning legislation) to carry out public consultation.

What sorts of planning applications will the Council consult on?

Planning applications can be required for a range of different developments from householder extensions to proposals for larger schemes such as new shopping centres, offices and housing developments. The erection of new buildings, and, sometimes, changing what an existing building is used for (e.g. changing the use of a house to a pub), is likely to require planning permission. If planning permission is required, the landowner or developer must submit a planning application to the Council's Planning Department. The Planning Department will then consult affected people and organisations, as set out in planning legislation (see below), in order to give them a change to comment on the proposals. Whilst applications for Certificates of Existing Lawful Use or Lawful Development are not planning applications as such, we will occasionally consult on these requests where it is thought that consultation responses may assist us in determining whether a development or use is lawful or not.

When, who and how the Council will consult:

Once a planning application is validated and registered, the assessment of its merits may commence. Part of this process includes carrying out consultation, which may include:

- Consulting specialist organisations - such as the Highways Agency, Environment Agency, Natural England, utility providers to establish as to whether the proposals have an impact on the specialist concerns of the organisation;

- Consulting other council teams - such as Highways, Planning Policy, Ecology, Environmental Health etc. to establish whether the proposals would be contrary to current policy or would have an unacceptable impact on any other important aspects of city life;

- Consulting with neighbours - A notification letter is sent to neighbouring properties that share a common boundary with the application site and for some applications, usually major schemes, will be sent to those situated within a slightly larger radius of the site; and

- Consulting with the wider community – this will be done by:
    - Making applications available on-line through Public Access (found on the Council's planning webpages);
    - Using site notices as appropriate;
    - Informing residents associations of applications in their area if they have asked to be notified; and/or
    - Advertising in a local newspaper – This is only for some planning applications, such as those that concern conservation areas or listed buildings; affect a Public Right of Way; are major applications; or conflict with the polices of the adopted Local Plan.

Following on from the Coronavirus Act 2020 and the enabling regulations, and the Covid-19 Planning Update (May 2020), the government published the Business & Planning Act, which received Royal Assent on 22 July 2020, with changes coming into force from 14th May 2020. The Act includes guidance on the publicity and consultation on planning applications (including site notices). The Regulations include the following changes:

> *Local planning authorities now have the flexibility to take other reasonable steps to publicise applications if they cannot discharge the specific requirements for site notices, neighbour notifications or newspaper publicity. These steps will notify people who are likely to have an interest in the application and indicate where further information about it can be viewed online. These steps can include the use of social media and other electronic communications and must be proportionate to the scale and nature of the proposed development.*
>
> *To ensure planning decisions continue to be made, local planning authorities should take advantage of these powers to hold virtual planning committees – rather than deferring committee dates. They should also consider using 'urgency powers' within their constitutions to give senior officers delegated authority to make decisions.*

APPENDIX 1 - INDICATIVE LIST OF CONSULTEES:

To clarify, the Council will consult on all planning matters in accordance with the latest planning regulations. The following list acts to provide a comprehensive indication of organisations to be consulted on plan-making in Southampton and is by no means finite. Furthermore, please note that this list includes both statutory consultees and general bodies and that the list may be subject to change over time

Organisation	**Type**
Eastleigh Borough Council	Neighbouring Councils
Hampshire County Council	Neighbouring Councils
Isle Of Wight Council	Neighbouring Councils
New Forest District Council	Neighbouring Councils
New Forest National Park Authority	Neighbouring Councils
Portsmouth City Council	Neighbouring Councils
Test Valley Borough Council	Neighbouring Councils
Fareham Borough Council	Neighbouring Councils
Winchester City Council	Neighbouring Councils
South Downs National Park Authority	Neighbouring Councils
Bursledon Parish Council	Neighbouring Parish Councils and Neighbourhood Plan Forums
Chilworth Parish Council	Neighbouring Parish Councils and Neighbourhood Plan Forums
Hedge End Town Council Office	Neighbouring Parish Councils and Neighbourhood Plan Forums
Hound Parish Council	Neighbouring Parish Councils and Neighbourhood Plan Forums
Hythe and Dibden Parish Council	Neighbouring Parish Councils and Neighbourhood Plan Forums
Marchwood Parish Council	Neighbouring Parish Councils and Neighbourhood Plan Forums
Nursling & Rownhams Parish Council	Neighbouring Parish Councils and Neighbourhood Plan Forums
Totton & Ealing Town Parish Council	Neighbouring Parish Councils and Neighbourhood Plan Forums
West End Parish Council	Neighbouring Parish Councils and Neighbourhood Plan Forums
Bassett Neighbourhood Forum	Neighbouring Parish Councils and Neighbourhood Plan Forums
Any adjacent Neighbourhood Forums	Neighbouring Parish Councils and Neighbourhood Plan Forums
Southampton BID	Local stakeholder organisation
Southampton city Residents Associations	Local stakeholder organisations

CABE / Design Council	Statutory Agencies and Sub Regional Bodies
Department For Culture, Media And Sport	Statutory Agencies and Sub Regional Bodies
Department for Education (DfE)	Statutory Agencies and Sub Regional Bodies
Environment Agency	Statutory Agencies and Sub Regional Bodies
Forestry Commission	Statutory Agencies and Sub Regional Bodies
Hampshire Constabulary	Statutory Agencies and Sub Regional Bodies
Health And Safety Executive	Statutory Agencies and Sub Regional Bodies
Hampshire Swift	Statutory Agencies and Sub Regional Bodies
Highways England	Statutory Agencies and Sub Regional Bodies
Historic England– South East	Statutory Agencies and Sub Regional Bodies
Home Office Civil Defence	Statutory Agencies and Sub Regional Bodies
Homes England	Statutory Agencies and Sub Regional Bodies
Ministry of Justice	Statutory Agencies and Sub Regional Bodies
Marine Management Organisation	Statutory Agencies and Sub Regional Bodies
Ministry of Defence	Statutory Agencies and Sub Regional Bodies
Natural England	Statutory Agencies and Sub Regional Bodies
Office of The Police and Crime Commissioner For Hampshire	Statutory Agencies and Sub Regional Bodies
PfSH - Partnership For South Hampshire	Statutory Agencies and Sub Regional Bodies
Solent Local Enterprise Partnership	Statutory Agencies and Sub Regional Bodies
Sport England	Statutory Agencies and Sub Regional Bodies
The Environment Centre	Statutory Agencies and Sub Regional Bodies
Department for Business Innovation & Skills	Statutory Agencies and Sub Regional Bodies
Department for Communities & Local Government	Statutory Agencies and Sub Regional Bodies
Department For Environment Food and Rural Affairs	Statutory Agencies and Sub Regional Bodies
Department of Constitutional Affairs	Statutory Agencies and Sub Regional Bodies
Department for Energy and Climate Change	Statutory Agencies and Sub Regional Bodies
Hampshire Fire And Rescue Service	Statutory Agencies and Sub Regional Bodies
Skills Funding Agency	Statutory Agencies and Sub Regional Bodies
Civil Aviation Authority	Statutory Agencies and Sub Regional Bodies
NATS	Statutory Agencies and Sub Regional Bodies
ABP	Other Infrastructure Bodies
Clinical Commissioning Group (CCG)	Other Infrastructure Bodies
EE	Other Infrastructure Bodies
Luken Beck Ltd On Behalf of Southampton University	Other Infrastructure Bodies
Solent University	Other Infrastructure Bodies
Mono Consultants Limited (Mobile Operators Association)	Other Infrastructure Bodies
Network Rail infrastructure limited	Other Infrastructure Bodies
O2– Telefonica UK Limited	Other Infrastructure Bodies
Red Funnel Group (TBC Graham)	Other Infrastructure Bodies
Go South Coast (Blue star)	Other Infrastructure Bodies
National Express	Other Infrastructure Bodies
First Bus	Other Infrastructure Bodies

First Great Western	Other Infrastructure Bodies
South Western Trains	Other Infrastructure Bodies
Southern Trains	Other Infrastructure Bodies
Cross Country Trains	Other Infrastructure Bodies
Office of Rail Regulators	Other Infrastructure Bodies
Southampton University Hospitals NHS Trust	Other Infrastructure Bodies
Southern Water	Other Infrastructure Bodies
Three	Other Infrastructure Bodies
Uni-Link Southampton	Other Infrastructure Bodies
Vodafone Limited	Other Infrastructure Bodies
BAA	Other Infrastructure Bodies
British Gas-Transco	Other Infrastructure Bodies
British Telecom	Other Infrastructure Bodies
Cable And Wireless Communications Plc	Other Infrastructure Bodies
Countrywide Gas	Other Infrastructure Bodies
HM Prison Service	Other Infrastructure Bodies
N Power	Other Infrastructure Bodies
Ofcom	Other Infrastructure Bodies
Road Haulage Association	Other Infrastructure Bodies
Department for Transport (DfT)	Other Infrastructure Bodies
Southern Electric	Other Infrastructure Bodies
Stagecoach In Hampshire	Other Infrastructure Bodies
SWEB Energy	Other Infrastructure Bodies
T Mobile (UK)	Other Infrastructure Bodies
Virgin Mobile Management Limited	Other Infrastructure Bodies
Canal and River Trust	Other Infrastructure Bodies
Coal Authority	Other Infrastructure Bodies
COMAH	Other Infrastructure Bodies
Crown Estates commissioners	Other Infrastructure Bodies
Garden History Society	Other Infrastructure Bodies
Theatres Trust	Other Infrastructure Bodies
Southampton City Primary Care Trust	Other Infrastructure Bodies
Any other appropriate infrastructure bodies	Other Infrastructure Bodies

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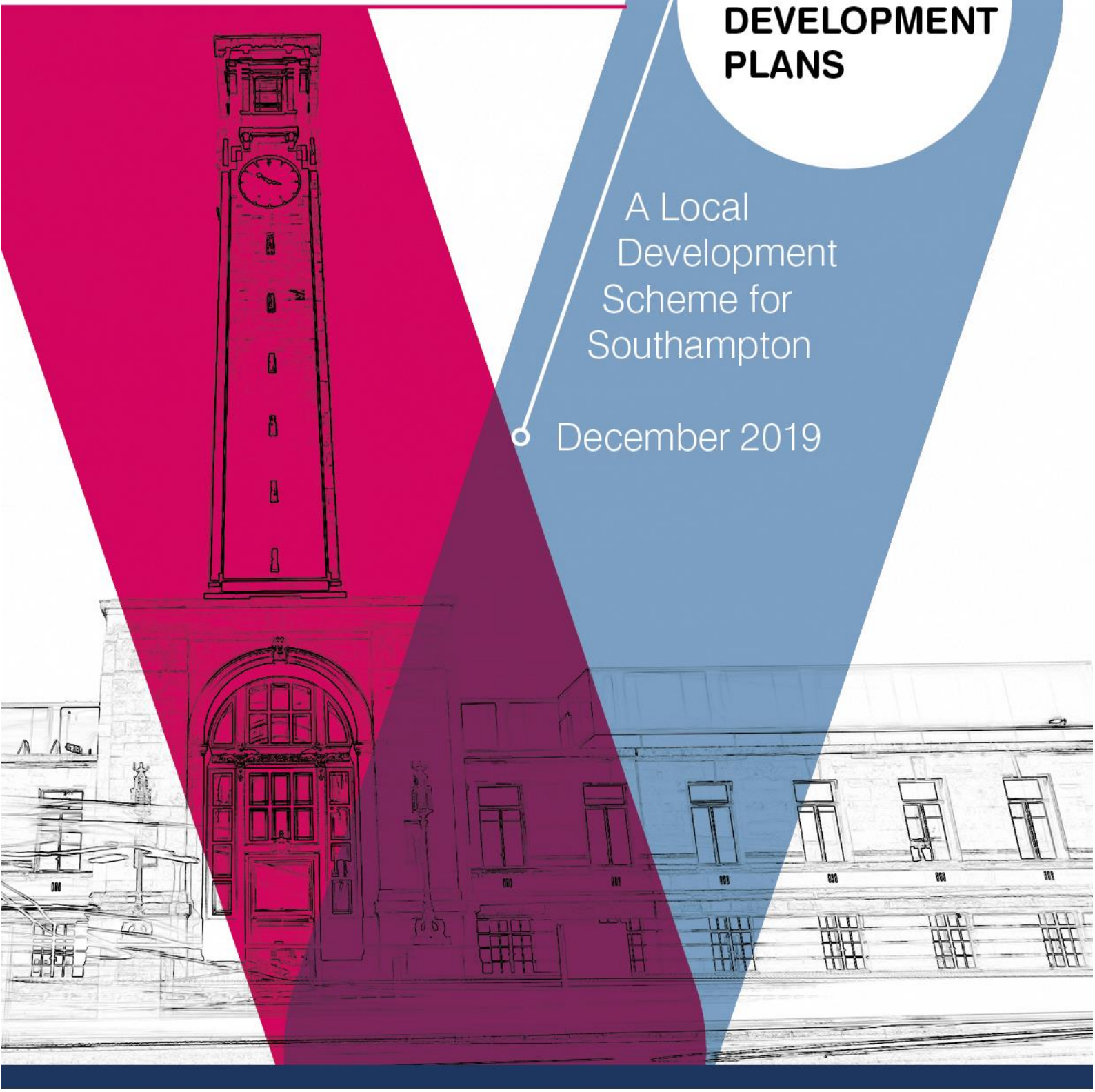
SOUTHAMPTON
CITY VISION

PREPARING OUR DEVELOPMENT PLANS

A Local Development Scheme for Southampton

December 2019



SOUTHAMPTON CITY COUNCIL

CONTENTS

PREPARING OUR DEVELOPMENT PLANS

A Local Development Scheme for Southampton

What is this document?

'Preparing our Development Plans' is a document that sets out how and when Southampton City Council will prepare 'Southampton City Vision', the new Local Plan, and other essential planning documents from 2019 onwards. These documents are referred to by government as Development Plan Documents, or DPDs.

Together, these plans express the vision for the city and form the Council's planning policy framework known as the 'Development Plan'. The purpose of the Development Plan is to guide all planning and development decisions for the area to which it applies.

The objectives of this document are:

- To meet the requirements of the Planning and Compulsory Purchase Act 2004; the Planning Act 2008; the Localism Act 2011; the National Planning Policy Framework (NPPF) 2019 and the National Planning Policy Guidance (NPPG);
- To accord with the Council's strategy for engagement as set out in the 'Involving you in Planning' document (2019);
- To present a plan that ensures a continued and up to date planning policy framework for Southampton; and
- To be accessible and user friendly for everyone.

Why is this document important for Southampton?

It is Southampton City Council's obligation to produce this document and to ensure it is updated regularly. However, as the document is required to include details of the proposed Development Plan changes, as well as a timetable for the works, it is also a great starting point for the local community and other interested parties to find out more about the planning of the city and to keep track of progress.

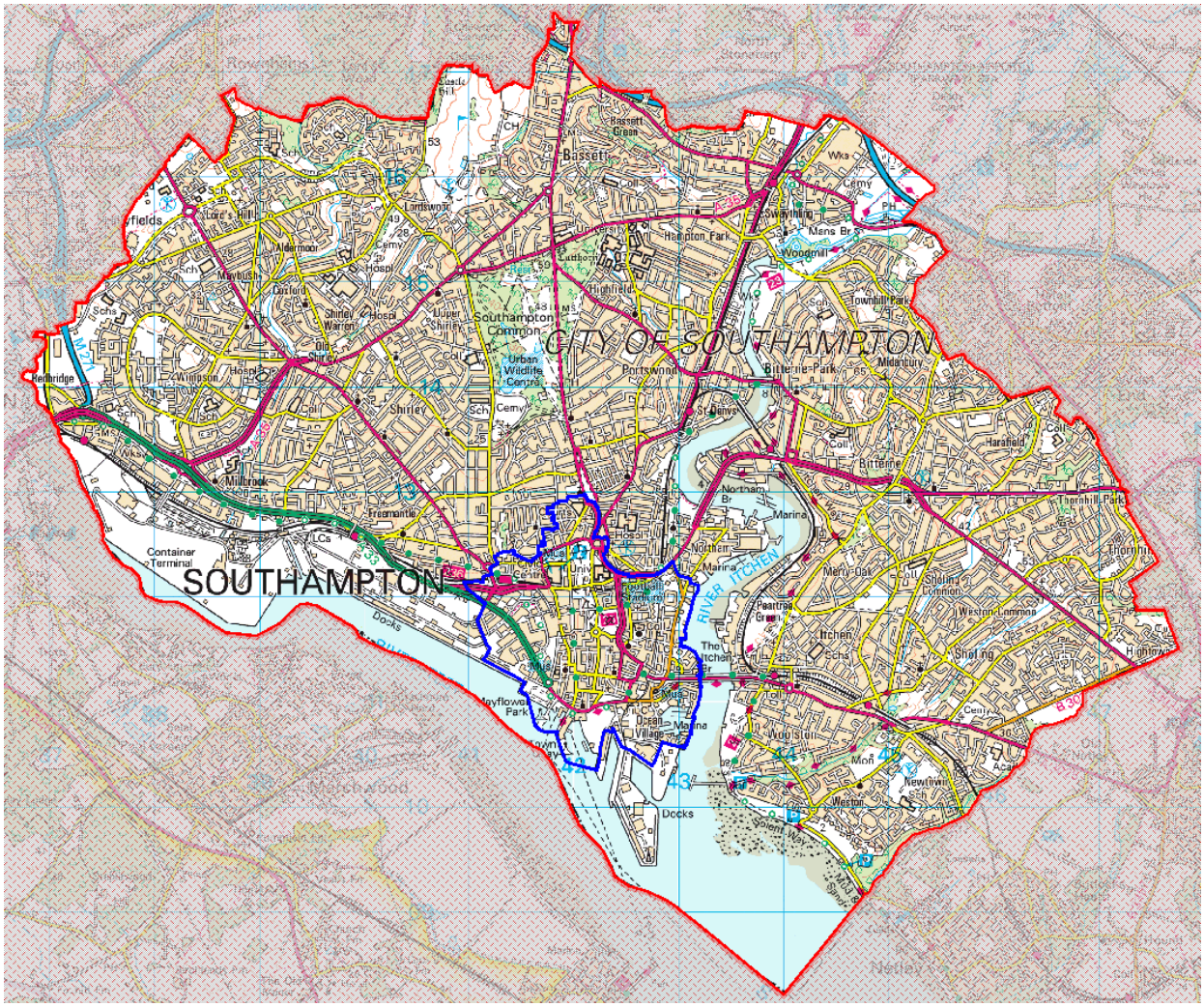
As a focal point in central southern England, and the principal city in south Hampshire, Southampton is an important regional location for growth and the development of new homes; additional employment opportunities; transport connections; as well as retail, leisure and education facilities. It is also the home of a globally important port, for both cruises and the transport of goods, and is a gateway to the Isle of Wight. It is therefore important that the Development Plan recognises all of the above and allows us to take advantage of any opportunities whilst promoting sustainable growth, protecting and enhancing of the city's natural and historic environment whilst ensuring vibrancy and attractiveness is maintained.

However, planning issues often change over time and policies can sometimes prove ineffective in tackling new problems or aiding us to drive forward change or growth when

new opportunities arise. It is therefore vital to update the Development Plan regularly and to ensure it is relevant to local planning issues. However, the Council also believes it is important to keep this document up to date so that local people, businesses and other interested parties can stay properly informed about why, how and when the we plan to make changes.

What is Southampton's Development Plan?

Southampton City Council's Development Plan comprises a series of documents which, as a whole, set out the aspirations for the city, the long-term strategic plans for Southampton, as well as a variety of other non-strategic planning policies to manage development within the city boundary (see figure 1). The Development Plan is also what both the planning officers and planning committee consider development proposals against to ensure that we, as the local planning authority for Southampton, are making consistent decisions in the best interest of the city.



SOUTHAMPTON CITY COUNCIL

Figure 1: Map of Southampton, including city boundary (red) and city centre boundary (blue).

What documents form the existing Development Plan for Southampton?

Southampton's Development Plan currently comprises 5 DPDs as shown in Figure 2. Further details on each of these documents, and the areas they apply to, are provided below.

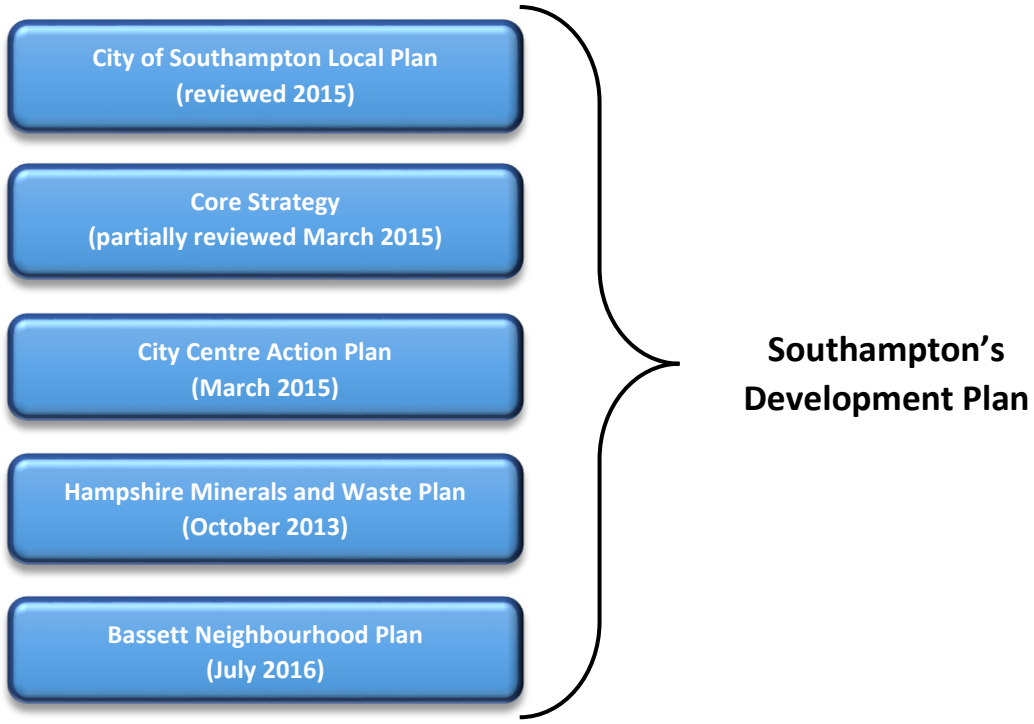


Figure 2: Development Plan Documents that form Southampton's existing Development Plan

City of Southampton Local Plan March 2006 and Review 2015

The original Local Plan was adopted in 2006 to provide a land use framework for the entire city. However, the initial documents that informed it (e.g. the City Strategy 1999 and Community Strategy 2003) had become out of date, therefore a review in 2015 updated its policies to ensure the Local Plan was fit for purpose and current use. The Local Plan Review (adopted March 2015) is therefore the latest version of this document and replaces parts of the original plan to align with Southampton's other adopted DPDs (listed below).

Core Strategy 2010 and its Partial Review March 2015

The original Core Strategy provided an overarching vision for Southampton to the year 2026, providing strategic policies for the city's economic development and spatial approach to planning. The 2015 Partial Review updated the document with three focussed changes that responded to altered priorities, more recent evidence and changing legislation. These were:

- Introduction of the national 'presumption in favour of sustainable development';
- A reduction of office and retail targets; and
- Changes to the biodiversity policy

City Centre Action Plan March 2015

This document was based upon the priorities set out in a masterplan undertaken in 2012. With a time horizon to 2026, the City Centre Action Plan (CCAP) has a vision and strategy for the city centre (see Figure 1 for city centre boundary).

The Hampshire Minerals and Waste Local Plan 2013

This plan covers the administrative areas of Hampshire County Council, Southampton City Council, Portsmouth City Council, New Forest National Park and the part of the South Downs National Park which falls within the administrative boundary of Hampshire Country Council. It addresses issues of supply, in terms of producing minerals for the construction industry, and managing mineral extraction in high quality landscapes (e.g. along the River Itchen and the Port of Southampton). However, the rising profile of waste management and recycling is presenting greater challenges to transport routes, noise and pollution (like dust emissions). As such, the plan's vision is to protect the environment, maintain communities and support the economy.

Bassett Neighbourhood Plan 2016

The Bassett Neighbourhood Plan was adopted by the Council on 20 July 2016, and runs up to 2029. It contains policies that seek to protect the green spaces, trees and the existing character in the ward of Bassett, acting to positively steer development and change in the area. It identifies high, medium and low density areas for housing in this ward with an emphasis upon the provision of family homes in response to identified need, managing traffic and controlling the growth of houses in multiple occupation (HMOs).

What changes are proposed for Southampton's Development Plan?

As explained above, and depicted in Figure 2, the current Development Plan for Southampton comprises a series of 5 DPDs. However, the Local Plan, Core Strategy and City Centre Action Plan have now become outdated, and we would like to make the Development Plan easier to comprehend and more user-friendly. As such, we are planning to combine the types of policies covered by these three outdated DPDs into a singular document – a new Local Plan called 'Southampton City Vision' (see Figure 3).

The other documents that form part of the existing Development Plan, namely the Hampshire Minerals and Waste Plan and the Bassett Neighbourhood Plan, will remain as existing. However, we anticipates that in the future there will be a need to review the Hampshire Minerals and Waste Plan in partnership with neighbouring Councils, including Hampshire County Council.

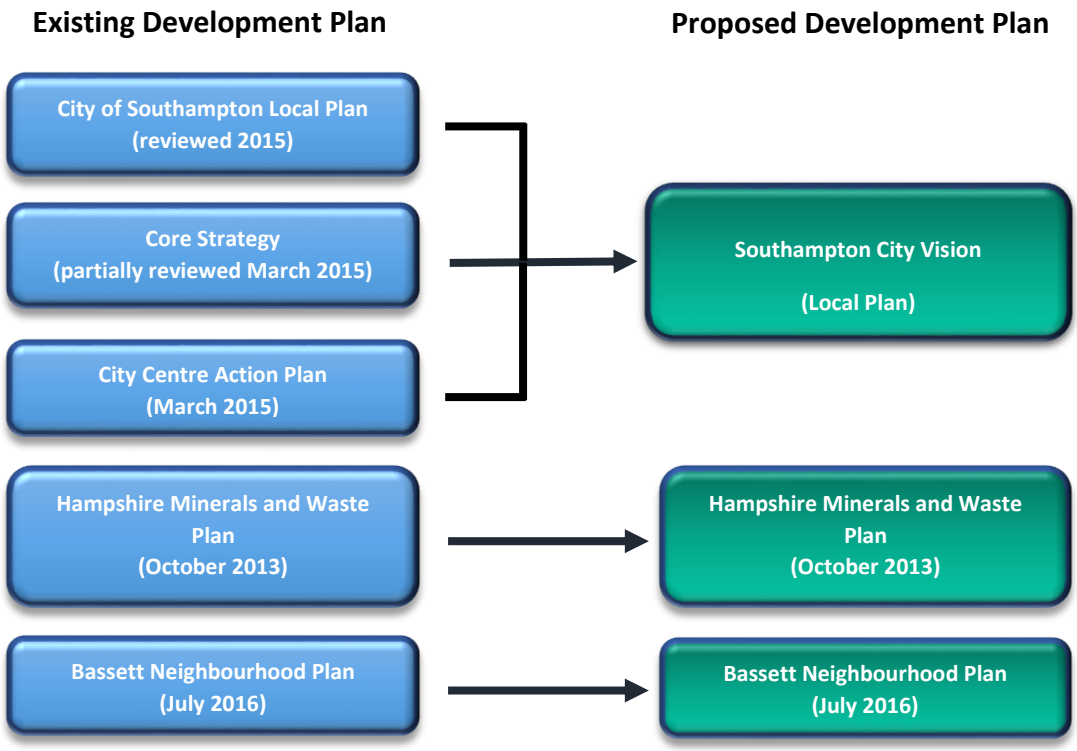


Figure 3: Existing Development Plan vs. Proposed Development Plan

It is important to note that the above sets out the Council's current plans, but over time the Development Plan may need to change further in order to assist in the effective management of development across the city. In light of this, the LDS (this document) will be updated regularly to ensure that there is proper and timely communication of the Council's planned changes and the timescales for the production of any new documents.

The new Local Plan, 'Southampton City Vision'

The future development needs of Southampton will be set out in this long term strategy to manage development, protect the environment and promote sustainable communities. It will set out how Southampton's growth needs will be met and will include policies for assessing planning applications and new development proposals across the whole of the city.

In developing this new Local Plan, we have the chance to take a fresh look at the challenges and opportunities in the city and to think about where the Council might be able to update planning policy to help tackle or take advantage of certain matters. This new document will also plan for Southampton's continuing growth and ensure that the new homes, businesses, jobs, shops and infrastructure the city needs can be delivered at the right time and in the right places.

Appendix 1 sets out the timetable of milestones in the plan's preparation and estimated dates for examination and final adoption.

How will the Council ensure that the Local Plan milestones are reached effectively and on time?

To deliver the programme as set out in the timetable (Appendix 1) it will be important to:

- Produce a sound and robust evidence base;
- Ensure stakeholders and the community and involved in the process, in accordance with the 'Involving you in Planning' document (2019);
- Ensure that we deliver on all legislative requirements;
- Allocate sufficient resources (staffing and financial) to carry out the required tasks;
- Review and monitor work undertaken (e.g. through the Annual Monitoring Report); and
- Assess risk, in terms of both mitigation and contingency

The Council will also keep this document, and the relevant planning documents, under regular review, amending its programme of work as necessary to ensure the continuation of sound planning strategies and policies for Southampton.

How will the Council report on the progress of the Development Plan changes?

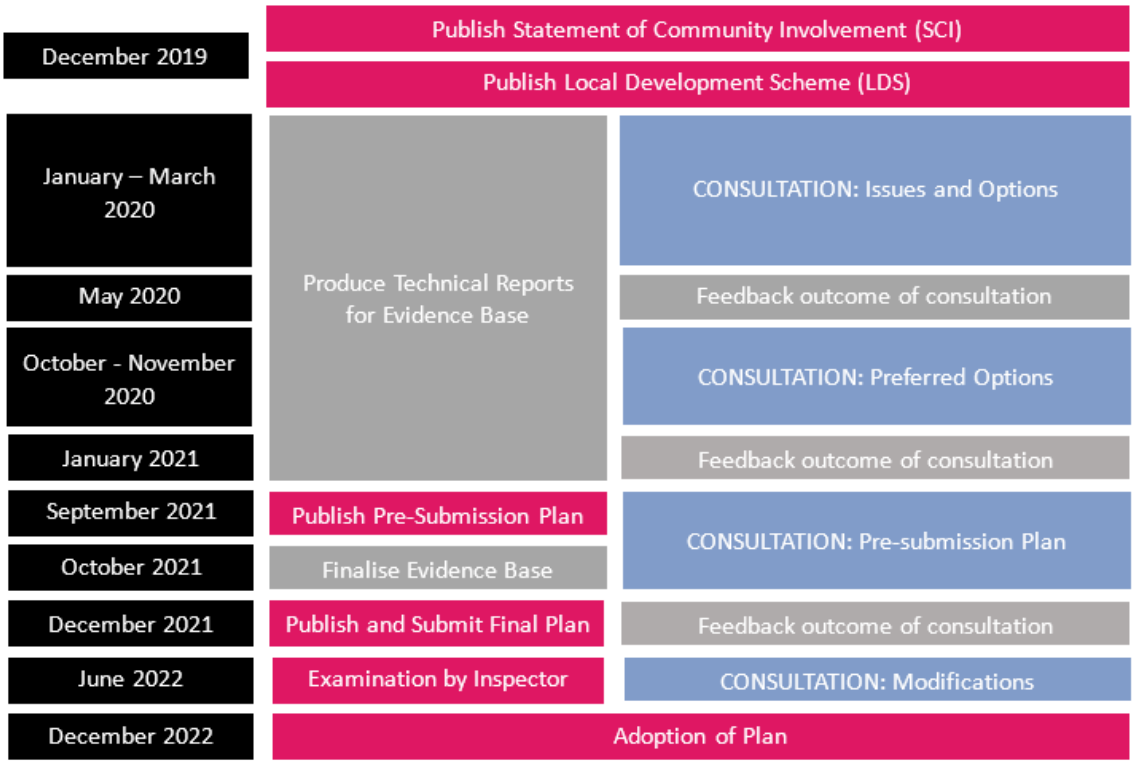
Southampton City Council Website

The Planning Policy webpages on the website will be kept up to date throughout the development of any new development plan documents, including those associated with the new 'Southampton City Vision' Local Plan. We will use these pages to communicate overall progress, provide information on any consultations or engagement activities that are being undertaken, publish any background documents that will support the plan and to publish the plan itself.

Authority Monitoring Report (AMR)

The AMR is a document that is required to be produced annually in order to provide monitoring updates on a range of planning matters and measure the effectiveness of the Council's planning policies. This document will update on progress towards any milestones set out in the 'Preparing our Development Plans' document and identify whether or not any of the proposed timescales require adjustment.

APPENDIX 1 – SOUTHAMPTON CITY VISION LOCAL PLAN TIMETABLE



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