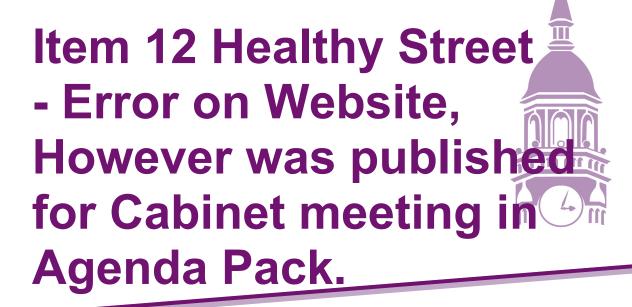
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12. The Future of the Experimental Healthy Neighbourhoods (Pages 3 - 70)

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Agenda Item

LONDON BOROUGH OF CROYDON

| REPORT: | CABINET | | | | |
|------------------------------|---|---|--|--|--|
| DATE OF DECISION | 14 February 2024 | | | | |
| REPORT TITLE: | The Future of the Experimental Healthy Neighbourhoods | | | | |
| CORPORATE | | Nick Hibberd, Corporate Director of Sustainable | | | |
| DIRECTOR / DIRECTOR: | Communities, Regeneration & Economic Recovery | | | | |
| LEAD OFFICER: | Heather Cheesbrough | | | | |
| | | Director of Planning and Sustainable Regeneration | | | |
| | | Abu Barkatoolah Project Manager and Report Author | | | |
| LEAD MEMBER: | Cour | ncillor Scott Roche, Cabinet Member For Streets and | | | |
| | | Environment | | | |
| KEY DECISION? | Yes | REASON: | | | |
| | | Decision significantly impacts on communities living or | | | |
| | | working in an area comprising two or more Wards | | | |
| CONTAINS EXEMPT INFORMATION? | NO | N/A | | | |
| WARDS AFFECTED: | Addiscombe East, Addiscombe West, Broad Green, South Norwood and Woodside | | | | |

1. SUMMARY OF REPORT

- 1.1 This report provides recommendations for the future of the seven Healthy Neighbourhoods that were first installed in May 2020. The Croydon schemes were swiftly implemented during the Covid-19 pandemic as temporary Low Traffic Neighbourhoods, using planters to close streets under Temporary Traffic Management Orders. Following feedback from residents, improvements were made to these schemes in September 2022. The full road closures and physical barriers on the majority of streets were removed to improve access for residents to their properties, and to allow visitors and other servicing to take place through a resident permit system. Funding for a future phases of Croydon Healthy Neighbourhoods were not taken forward, through a reallocation of the LIP active travel programme.
- 1.2 The Improvements to these schemes were introduced under time-limited Experimental Traffic Management Orders following the 30 July 2021 revision of the government Guidance. The Experimental Traffic Management Order for these schemes was implemented on 30th September 2022 for a period of 18 months and included a 6-month statutory objection period from 30th September 2022 to 30th March 2023.
- 1.3 This report considers the future of these seven legacy schemes that have been in place since May 2020 and as a result does not propose to introduce any new schemes.

- 1.4 During the first 6 months of the experimental order, the council sought the views of the local community via statutory consultation, encouraging them to provide feedback through the Get Involved online surveys and through the CHN specific email addresses, in addition to drop-in sessions during February and March 2023. The council carried out a monitoring exercise post the statutory consultation stage to assess the impact of the experimental scheme, and to report on the findings with recommendations tailored in accordance with the qualitative and quantitative research as detailed in this report. It should be noted that in general the statutory process for any Experimental Traffic Orders invites objections only during the first six months.
- 1.5 Table 1 below is a list of Healthy Neighbourhoods under Experimental Orders

| Ref | Healthy Neighbourhoods | Boundary Roads | Wards |
|-----|---------------------------|--|--------------------|
| 1 | Albert Rd | Portland Rd | Woodside |
| 2 | Dalmally Rd | , | Addiscombe West |
| 3 | Elmers Rd | Woodside and Blackhorse Rd | Addiscombe West |
| 4 | Holmesdale Rd | Whitehorse Rd, Sth Norwood Hill, Selhurst Rd and Park Rd | South Norwood |
| 5 | Residential Rd | Dartnell Rd and Jesmond Rd (residential roads, point closure at end with Jesmond Rd) | 1 |
| 6 | Parsons Mead | Dennett Rd, London Rd, Roman Way and Mitcham Rd | Broad Green |
| 7 | Sutherland Rd | Canterbury Rd, London Rd and Dennett Rd | Broad Green |

2. RECOMMENDATIONS

For the reasons set out in the report, and having due regard to the outcome of the 1) statutory consultation, 2) engagement and monitoring exercise and 3) the equalities considerations as set out in section 14, 5) section 122 Road Traffic Act 1984 and 6) officer considerations as detailed in primarily paragraph 5, the Executive Mayor in Cabinet, is recommended to:

A) To proceed with making permanent the Healthy Neighbourhood ref 1,2,3,4,6 and 7 as outlined below and to continue to work with residents to ensure signage is improved as where necessary to raise awareness.

| Ref | Healthy Neighbourhood | Wards | Experimental Order | Order Ref |
|-----|--------------------------|--------------------|--|---------------|
| 1 | Albert Rd | Woodside | The Croydon (Traffic Movement)No17 Exp Order 2022 | 2022 No 63 |
| 2 | Dalmally Rd | Addiscombe West | The Croydon (Traffic Movement)No12 Exp Order 2022 | 2022 No 29 |
| 3 | Elmers Rd | Addiscombe West | The Croydon (Traffic Movement)No14 Exp Order 2022 | 2022 No 37 |
| 4 | Holmesdale Rd | South Norwood | The Croydon (Traffic Movement)No16 Exp Order 2022 | 2022 No 58 |
| 6 | Parsons Mead | Broad Green | The Croydon (Traffic Movement)No15 Exp Order 2022 | 2022 No 40 |
| 7 | Sutherland Rd | Broad Green | The Croydon (Traffic Movement)No13 Exp Order 2022 | 2022 No 34 |

B) To remove The Kemerton Rd Healthy Neighbourhood, detailed below:

| Ref | Healthy Neighbourhood | Ward | Experimental Order | Order Ref |
|-----|-----------------------------------|------------|------------------------------|-----------|
| 5 | Kemerton Rd (single residential | Addiscombe | The Croydon (Prohibition and | 2022 No |
| | road between two residential | West | Restriction of Stopping, | 32 |
| | roads with a point closure at its | | Loading and Waiting) and | |
| | end with Jesmond Rd) | | (Free Parking Places) (No 3) | |
| | | | Experimental Order 2022 | |

Kemerton Rd was closed at its junction with Jesmond Rd with lockable bollards which the emergency services can unlock in an emergency. There is no evidence to demonstrate that it was a road used by through traffic, and it does not form part of a wider healthy neighbourhood scheme. Residents who came to the drop-in sessions were not supportive of it remaining. The opening of the road to traffic would not necessarily create an opportunity for through traffic to by-pass any roads as it is a short length of highway between two main roads, no real gains in using it to access the road on either side.

- 2.2 To agree that officers will work with residents on adjustments to improve the following Croydon Healthy Neighbourhoods (CHN), Ref 1, 4, and 7 Subject to Paragraph 2.1 A
 - **A)** To work with residents of Albert Rd (Ref CHN 1) to agree adjustments that can be made between Eldon Rd and Harrington Rd. This section is currently unrestricted due to the on-going development requiring a temporary closure.
 - **B)** To work with residents of 1) Holmesdale HN (Ref CHN 4) to reduce the impact in Dixon Rd due to displaced traffic, and 2) to work with residents of Priory Rd and Wentworth Rd (Ref CHN 7) to reduce the impact caused by displaced traffic. Any adjustments to 1) and 2) will be integral to the 2024-25 TfL funded LIP programme to ensure the Healthy Neighbourhoods deliver a coherent approach to improving conditions in residential roads through reducing the degree on impact.

| Ref | CHN | Unrestricted residential roads within HN | Residential Roads outside of HN | • | Order Ref |
|-----|------------------|--|---------------------------------|---|---------------|
| | | subjected to displaced traffic | | | 1101 |
| 4 | Holmesdale Rd | Dixon Rd | | The Croydon (Traffic Movement)No16 Exp Order 2022 | 2022 No 58 |
| 7 | Sutherland Rd | | Wentworth Rd and Priory Rd | None | None |

2.3 Subject to approval of recommendations 2.1 above, to delegate authority to the Corporate Director of Sustainable Communities, Regeneration & Economic Recovery to undertake all measures necessary to make the above referenced experimental orders permanent Traffic Management Orders, including pursuant to the statutory requirements of the Road Traffic Management Act 1984 and Local Authorities' Traffic Orders (Procedure) (England and Wales) Regulations 1996 and make arrangements for the enforcement thereof.

3. REASONS FOR RECOMMENDATIONS

- 3.1 The Experimental Schemes were monitored to test the effectiveness of the measures and independent polling surveys were also carried to seek views of all those who participated in the surveys. The technical assessment has indicated a raft of benefits which are described briefly below.
 - Road safety benefits: Across many of the schemes there are sufficient benefits in road safety terms to support the decision to retain the healthy neighbourhoods. In general, the introduction of any scheme delivers benefits and disbenefits and more often the benefits outweigh the disbenefits. The technical assessments have indicated a reduction between 1.6 mph to 5 mph bringing speeds closer to 20 mph. Other benefits include reduction in 1) traffic volume in roads controlled by access measures and 2) injury collisions.
 - The experimental schemes have created conditions where vulnerable road users have adjusted to low traffic streets and their perception of road danger has reduced. Table 6.14 provides a summary of the outcome of the assessment. The schemes meet Croydon's strategic transport objectives as per the Local Implementation Plan, along with those within the Executive Mayor of Croydon's Business Plan. On balance, the schemes have improved conditions for residents.
 - Air Quality benefits. Nitrogen Dioxide, PM10 and PM2.5. Appendix 1a of this
 report includes a table showing the predicted air quality results for the largest
 improvements and the largest worsening across the study area. The modelling was
 based on traffic data pre and post measures. Pollutants emissions from vehicular
 traffic were modelled across the study area to gauge any predicted changes
 resulting from the measures in place. The modelling has predicted a reduction of:
 - 1) 14.5 tonnes of Nitrogen Oxides per year
 - 2) 2.2 tonnes of PM10 per year and
 - 3) 1.2 tonnes of PM2.5 per year.

Nitrogen Oxides and Nitrogen Dioxides are part of a group of gases which are emitted when fossil fuel is burnt at high temperatures, including oil-based fuels.

These are harmful to human health in particular can cause respiratory health issues in addition to harming the environment.

3.2 It is recommended that the Healthy Neighbourhood at Kemerton Rd be removed as it does not form part of any Healthy Neighbourhood in a similar manner to other residential roads within the group. It is one road with a point closure. The views expressed at the drop-in sessions were that it should be removed. Removing Kemerton Rd HN would not necessarily create a rat run as this road serves no gain as a through route. There is no historical data to demonstrate this road was a rat run prior to its closure.

4. AIM OF THIS REPORT AND HISTORICAL CONTEXT

- 4.1 The trial Experimental Healthy Neighbourhoods started out in May 2020 as a direct response to the Covid Pandemic and the first issuing of the statutory guidance on the 'Traffic Management Act 2004: Network Management to Support Recovery from COVID-19'. This called on local authorities to take swift action (and in any event to act within a matter of weeks) to create space for social distancing, walking and cycling, with the measures including using planters to close streets to create LTNs, as the country emerged from the first Lockdown in May 2020.
- 4.2 The Croydon schemes were swiftly implemented in May 2020 as temporary Low Traffic Neighbourhoods, using planters to close streets under Temporary Traffic Management Orders. These schemes were then adjusted and retained as experimental schemes under time limited Experimental Traffic Management Orders following the 30 July 2021 revision of the Guidance. The revised guidance and publication of the 'Gear Change' the government's Cycling and Walking Plan for England, gave clear expectation that local authorities to take measures to reallocate road space to people walking and cycling, explaining that: 'The focus should now be on devising further schemes and assessing COVID-19 schemes with a view to making them permanent. The assumption should be that they will be retained unless there is substantial evidence to the contrary.' The current experiments were initiated to gather this evidence.
- 4.3 Following feedback from residents, improvements were made to the schemes in September 2022 as part of the schemes moving from temporary to experimental Traffic Management Orders. The full road closures on the majority of streets were removed, and camera enforcement replaced planters. Exemption permits are offered to motor vehicles belonging to the following groups of drivers, to enable them to drive into the CHN:
 - Occupier within the zone, with a registered vehicle or a hire, company or courtesy
 car.
 - School Staff
 - Blue badge holders
 - Essential health and care visitors, including relatives of residents with care needs.

In addition, motor vehicles belonging to the following groups and situations are automatically permitted to drive in a CHN, without first obtaining an exemption permit:

- Emergency services
- Buses
- Dial A Ride Vehicles
- Refuse collectors
- Universal postal service providers, such as the Royal Mail

 Exemptions stated in the Highway Code, such as with the permission or at the direction of a police officer

Improved warning signage and road markings were also put in place to ensure road users are aware of the restrictions.

4.4 Matters to Consider when Deciding to Make a TMO

The Orders to make the experiments permanent would be made under Section 9 of the Road Traffic Regulation Act 1984. In exercising its powers under the Act, the Council is required (by virtue of Section 122 of the Act) to secure the expeditious, convenient and safe movement of vehicular and other traffic (including pedestrians) and the provision of suitable and adequate parking facilities on and off street, whilst at the same time having regard to the following considerations:

- The desirability of securing and maintaining reasonable access to premises;
- The effect on the amenities of any locality affected
- Air quality;
- Facilitating the passage of public service vehicles and securing the safety and convenience of persons using them; and
- Any other matters appearing to the Council to be relevant
- 4.5 **Statement of Reasons for the ETMO:** The Order introduced an experimental access prohibition for motor vehicles, as part of a "Croydon Healthy Neighbourhood" or CHN scheme in the streets identified. The aim of a CHN is to make street more attractive for people in the following ways:
 - Streets that are safer, cleaner, and quieter addressing long-standing concerns from local residents around congestion and road safety.
 - Streets that support more sustainable methods of travel like cycling or walking addressing concerns around air pollution and the climate crisis.
 - Streets that encourage and enable increased physical activity addressing concerns about poor physical and mental health.
- 4.6 **Overview of the Statutory consultation:** The seven healthy neighbourhood schemes were all introduced under Experimental Orders which came into force on 30th September 2022. Integral to this 18 month Experimental order was a six month statutory consultation during which representations / objections could be made by those either directly and/or indirectly affected by the schemes, the statutory consultation ended on 30th march 2023. The manner in which representations could be made was through a survey link "Getinvolved" posted on the council web page for the schemes, additionally each scheme had a specific email address which was also used as a channel to make representation.
- 4.7 The table below outlines the total number of objections received form all seven Healthy Neighbourhood areas and external to the HN areas. All objections were considered with the exception of duplications.

| CHN | Albert Rd | | Elmers Rd | Kemerton Rd | Sutherland Rd | Mead | Total number of objections received for all CHN |
|---|-----------|---|--------------|----------------|------------------|------|--|
| Number of objections related to the schemes from getinvolved and emails | 87 | 9 | 19 | 14 | 33 | 25 | 187 |

- 4.8 Given that objections or representations were not specific to a category, they were common themes amongst the batch of objections received and the four main themes identified were:
 - 1. Traffic displacement and access issues such as difficulties for service deliveries, increase journey times
 - 2. Impact on community and environment (pollution, impact on mental well being, personal safety etc)
 - 3. Financial driver (council introduced scheme to raise revenue)
 - 4. Other (poor communications, inadequate signage, etc)
- 4.9 An indication of how the key objectives in the ETMO Statement of Reasons for the introduction of the 7 healthy neighbourhoods can be met
 - Road Safety: In general road safety can be measured by 1) a reduction in collision injuries through measures introduced and/or reduced road danger through 2) the reduction of traffic volume and/or 3) a marked reduction in 85%ile vehicular speed
 - Reduce Pollution: NO2, PM10 and PM2.5 all measured in millionth of a gram per cubic metre of air. (micro gram / cubic metre). A reduction in car borne pollutants can be attributed to a reduction in the volume of traffic using a specific section of road. Caution needs to be applied to using this factor only given that pollution depends on many other factors including weather conditions and other emitters of pollutants in the surrounding area and beyond. etc and is not a single source measurement over a short duration. This is an area wide consideration over a longer timeframe. It must be recognised that concentration of pollutants such as PM10 and PM2.5 are smaller quantities and can result in negligible change in before and after scenarios in traffic reduction terms. What is more noticeable is the NO2 concentration of pollutant which is the dominant pollutant insofar as motorised transport is concerned.
 - Increasing sustainable and active travel, walking/ cycling: Restricted access measures with residential streets are part of the solution to increasing cycling and walking journeys. The smart sensors which the council has introduced in 2022 were used to monitor both pedestrian and cycling activities. This is based on behavioural change and in some cases changes happens over a period of time. It can be difficult to quantify during an experimental period when behavioural change is in its infancy and people take longer timeframe to make lifestyle choices. Insofar as cycling is concerned whilst the residential streets can offer a quieter environment to cycle, getting to your destination often requires cycling beyond your neighbourhood areas. This can involve crossing main roads to permeate through other quieter residential streets and having safe cycle parking facilities at the end of your journey. These two components are key factors in creating a shift from car borne journeys to cycling.

Overview of the engagement and monitoring exercises.

- 4.10 Qualitative Research Community Engagement Events February 2023- March 2023: Community engagement events in the form of drop-in sessions took place across all HN over a two-week period. These were opportunities for the local community to have in-person conversations with council officers and voice their views / concerns. A summary of the analysis of the views/ comments received is included in this report. Eight drop-in sessions were held in total across February and March 2023.
- 4.11 Qualitative Research CHN Scientific Polling across all Healthy Neighbourhoods and along boundary roads. The council commissioned an independent research consultancy to carry out a scientific polling using in -person interviews and online surveys to seek views from all the healthy neighbourhoods currently in place under ETMO. A total of 7600 letters/ questionnaires were sent to all residents within the HN and along boundary roads, achieving a response rate of approximately rate of 3% (297 completed questionnaire received) A total of 552 in-person interviews were conducted within similar areas representing a sample size.
- 4.12 Quantitative Research Technical Monitoring: The healthy neighbourhoods (residential roads and main boundary roads) were monitored to evaluate how they have met the key objectives previously set out and evidence any demonstrable benefits / disbenefits. The key components of the monitoring exercise were traffic volumes and speed, air quality, road collisions, pedestrians and cycling trends.

5. ALTERNATIVE OPTION CONSIDERED:

Not to proceed with Recommendations 2.1 ,2.2 and 2.3 (Removal of Albert, Dalmally, Holmesdale, Parsons Mead and Sutherland Rd CHN)

- 5.1 Officers View: Road safety consideration
- 5.1.1 The introduction of measures within the group of healthy neighbourhoods has created an environment with reduced traffic since its implementation initially through planters followed by restricted access. These measures have now been in place for approximately 2+ years, consequently residents living within the bounds of the healthy neighbourhoods have adjusted to a calmer and pleasant environment even though there have been objections relating to key themes especially about traffic displacement.
- 5.1.2 One of the key by-products of a reduced traffic environment is the reduction of road danger. Road danger is seen primarily as a threat posed to vulnerable road users by the presence of high or through traffic volumes using residential roads as a short-cut. Road user perception of risk is important as danger is related to mobility. Increasing risk of road danger reduces the level of movements by pedestrians especially the elderly, thus reduces walking and cycling. Over the last 2+ years since the implementation of these measures, the outcome of the drop-in sessions has indicated that younger families have changed their behaviour through an increase in active travel, i.e walking to school and to other activities.
- 5.1.3 Creating quieter and safer residential streets within neighbourhood areas provides opportunities to deliver safer main road crossing points to connect neighbourhoods

and in so doing create safer routes for pedestrians and cyclists to reach their destinations through active travel. Additionally, knitting these areas together with cycle lanes through parks and improving the environment through tree planting delivers supports sustainable active travel across the brough.

5.1.4 The removal of all the CHNs would be a missed opportunity to improve the quality of the environment and people's lives through tackling a high traffic environment. Removing all measures and opening all residential roads to through traffic without restrictions would mean that residents would have to re-adjust to an environment where the risk of road danger would be higher in comparison to the status quo, and this could increase the conflict between motorised traffic and pedestrians / cyclists. Whilst drivers would make this adjustment very quickly, residents living within these areas would take time to adjust to a high traffic environment. Opening up roads to through traffic could be contrary to the council's statutory duty to improve road safety and reduce road danger at source.

6. CONSULTATION

- 6.1 Schemes introduced under an ETMO invite and must allow for objections to be made for a period of 6 months from the point they come into force. Objections are permitted from anyone affected by the scheme regardless of their status. The comments received during this objection period must be considered by the Council in determining whether any changes should be made to the experiment whilst it is in force and in considering whether to proceed to a permanent TMO following the experiment. The table below outlines in detail
 - Responses received from "getinvolved" survey link and specific email addresses
 - Responses received from the statutory consultation and email addresses separately
 - The total number of objections considered per CHN
 - The total number of supports per CHN
 - The number of objections per CHN allocated to key themes
- 6.2 The full analysis of responses received from the statutory consultation appears at Appendix 1i
- 6.3 Validation of Statement of Reasons Objectives with ref to technical analyses
- 6.3.1 The technical analysis appears at Appendix 1i to this report
- 6.3.2 Road Safety: In general, the monitoring has indicated a reduction of 1.6 mph to 5 mph in traffic speed across all CHN, bringing speeds to below 20 mph posted limit and slightly above 20mph posted limit. Any reduction in traffic speed could contribute to a reduction in road collision occurring and more importantly a reduction in high severity injury collision. We have also seen a reduction in collision in some CHN whilst a slight increase in other CHN. In accordance with the Royal Society for the Prevention of Accidents 95% of all collision can be attributed to poor road user behaviour. Hence, where we have low traffic volumes in a residential street it does not necessarily mean the occurrence of road collisions will be eradicated. As stated, driver's behaviour is a main contributory factor to the occurrence of road collisions. Creating streets with low volume of traffic mean a decrease in road danger at source and increase in mobility either through walking and or cycling.

- 6.3.3 **Reduced Pollution:** The analysis has indicated a noticeable change in the level of NO2 which is the primary pollutant in vehicle emissions. Levels of PM10 and PM2.5 are considered too low to report. The initial level of NO2 pollution concentration was lower that the UK legal limit and mean objectives set. The current levels of NO2 are well below the UK mean objectives.
- 6.3.4 Increase walking and cycling: Smart sensors were introduced within the boundary of the CHN areas in 2022 and base line data before the measures were introduced were not available given that measures went in very quickly during the pandemic. The data we have thus far has indicated no change in trends for both cycling and walking. That said, the outcome of the drop-in sessions has indicated that some residents have switched to walking especially walking their children to school and feel the quieter streets offer a better walking environment.

7. CONTRIBUTION TO COUNCIL PRIORITIES

7.1 Neighbourhoods are aimed at delivering improved environments for our residents through less rat-running/traffic intrusion, less noise and improved air quality. Over time, the quieter and less trafficked roads can also promote and encourage a change in travel behaviour. Encouraging walking and cycling is key to tackle any physical and mental health issues, in so doing create a resilient and healthier community.

8. FINANCIAL IMPLICATIONS

8.1 Revenue and Capital consequences of report recommendation

The table below outlines the income and expenditure related to the Healthy Neighbourhoods

| | 2022/23 | 2023/24 | 2024/25 | 2025/26 | 2026/27 | Total |
|-------------------|---------|---------|---------|---------|---------|---------|
| Revenue | £000s | £000s | £000s | £000s | £000s | £000s |
| Total Income | | -2,059 | -3,757 | -3,206 | -2,928 | -11,950 |
| Total Expenditure | | 173 | 344 | 369 | 338 | 1,224 |
| Surplus / Deficit | | -1,886 | -3,413 | -2,837 | -2,590 | -10,727 |

| Capital Expenditure | 1,078 | 148 | - | - | - | 1,226 |
|---------------------|-------|-----|---|---|---|-------|
|---------------------|-------|-----|---|---|---|-------|

The modelling indicates the current 6 Healthy Neighbourhoods will deliver a £10.7m surplus (over the course of 4 years) after operating costs from an initial £1.2m capital outlay.

The income projections stated above are based on the compliance curve provided by consultants, given the limited historical data we have to validate the model (HN schemes have only been implemented since Nov-23).

The approximate cost of making the 6 permanent Traffic Management Orders (TMOs) including officer time is expected to be £60,000. The capital budget for the

works is currently sitting within the LIP Capital programme where there is currently £165k of budget which was approved as part of the 2023 LIP Report.

There has been a change in political appetite for camera-controlled traffic calming measures. Future central government involvement could impact HN schemes.

8.2 Comments approved by Nish Narendran on behalf of the Director of Finance. (Date 18/01/2024)

9. LEGAL IMPLICATIONS

- 9.1 The Road Traffic Regulation Act 1984 (RTRA) and the Local Authorities' Traffic Orders (Procedure) (England and Wales) Regulations 1996 (LATOPR 1996) establish the procedures for making a traffic regulation order, (including an Experimental Traffic Regulation Order).
- 9.2 Once an experimental order is in force, any person may object to it becoming permanent within the period of 6 months from the date an experimental order comes into force. If the experimental order is amended, objections may be made within 6 months of that amendment coming into force. The statutory consultation responses received and set out in this report include the objections received pursuant to these provisions, to which the Council must have due regard in making its decisions.
- 9.3 In determining whether or not to make a traffic management order, the Council is required, under Regulation 9 of the LATOPR to consider whether it is under a duty under regulation 9(3) to hold a public inquiry before making an order. Even where an inquiry is not mandated, the Council may still choose to hold an inquiry to consider objections before making any other order. The report details officers' consideration of these elements.
- 9.4 Regulation 23 which governs making an experimental order permanent provides that the Council is able to rely on the truncated process for approval of an experimental order being made permanent provided that the requirements of Regulation 23(3) are met and the sole effect of an order ("a permanent order"), is to reproduce and continue in force indefinitely the provisions of an experimental order or of more than one such order ("a relevant experimental order"), whether or not that order has been varied or suspended under section 10(2) of the RTRA.
- 9.5 Regulations 6 (consultation), 7 (notice of proposals) and 8 (objections) of the LATOPR 1996 shall not apply to a permanent order where the requirements specified in regulation 23 (3) have been complied with in relation to each relevant experimental order.
- 9.6 The regulation 23(3) requirements are that— (a)the notice of making contained the statements specified in Schedule 5 of the LATOPR; (b)deposited documents (including the documents referred to in sub-paragraphs (c) and (e)) were kept available for inspection in accordance with Schedule 2 of the LATOPR throughout the whole of the period specified in regulation 22(4); (c)the deposited documents included a statement of the order making authority's reasons for making the experimental order; (d)no variation or modification of the experimental order was made more than 12 months after the order was made; and (e)where the experimental order has been modified in

accordance with section 10(2) of the RTRA, a statement of the effect of each such modification has been included with the deposited documents.

- 9.7 In applying regulations 10, 11 and 13 and Schedule 3 of LATOPR 1996 to a permanent order to which regulations 6, 7 and 8 do not apply by virtue of regulation 23 (2)— (a)the notices of making published in respect of each relevant experimental order shall be treated as the notice of proposals published under regulation 7(1)(a) in respect of the permanent order; (b)any objection made in accordance with the statement included by virtue of paragraph (3)(a) in the notice of making published in respect of a relevant experimental order shall be treated as an objection duly made under regulation 8 to the permanent order.
- 9.8 By virtue of section 122(1) of the RTRA, the Council must exercise its powers under that Act so as to secure the expeditious, convenient and safe movement of vehicular and other traffic including pedestrians, and the provision of suitable and adequate parking facilities on and off the highway. Decisions by the Courts show that this duty needs to be balanced in substance against the factors which may point in favour of imposing a restriction on that movement specified in section 122(2) RTRA. Broadly, these factors are, the desirability of securing and maintaining reasonable access to premises, the effect on the amenities of any locality affected, including the importance of regulating and restricting heavy commercial vehicles, the national air quality strategy, the importance of facilitating public service vehicles, and the safety and convenience of people using or wanting to use such vehicles, and any other matters appearing to the authority to be relevant.
- 9.9 The Council must have proper regard to the matters set out at section 122(1) and (2) RTRA and specifically document its analysis of all relevant section 122 RTRA considerations when reaching any decision.
- 9.10 Section 144 of The Greater London Authority Act 1999 places a duty on each London local authority to have regard to the Mayor of London's Transport Strategy when exercising any function. This therefore includes the exercise of the Council's general road network management duty under section 16 of the Traffic Management Act 2004, and when deciding whether to make a traffic order.
- 9.11 Where ANPR is used, the Council must ensure it adheres to the Investigatory Powers Commissioner's Office Guidance (previously Office of the Surveillance Commissioner) and Information Commissioner Guidance, where appropriate. Officers will need to ensure that data protection matters, including the use of ANPR are addressed via the necessary data protection impact assessments.

Comments approved by Sandra Herbert, Head of Litigation & Corporate Law on behalf of the Director of Legal Services and Monitoring Officer. (Date 15/12/2023)

10. EQUALITIES IMPLICATIONS

- 10.1 The Council has a statutory duty, when exercising its functions, to comply with the provisions set out in the Sec 149 Equality Act 2010. The Council must, in the performance of its functions, therefore have due regard to:
 - eliminate discrimination, harassment, victimisation and any other conduct that is prohibited by or under this Act;

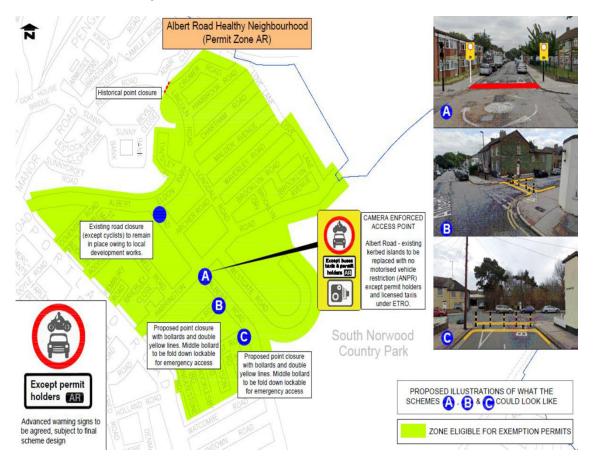
- advance equality of opportunity between persons who share a relevant protected characteristic and persons who do not share it;
- foster good relations between persons who share a relevant protected characteristic and persons who do not share it.
- 10.2 An EQIA has been undertaken for this service and show no adverse impact on any protected characteristics.
- 10.3 Comment approved by Naseer Ahmad on behalf of the Equalities Manager. (Date 18/12/2023)

11. APPENDICES

Appendix A Location maps of Experimental CHN Appendix Ai Analysis of Responses Received)
Appendix B – Equality Impact Assessment

Appendix A

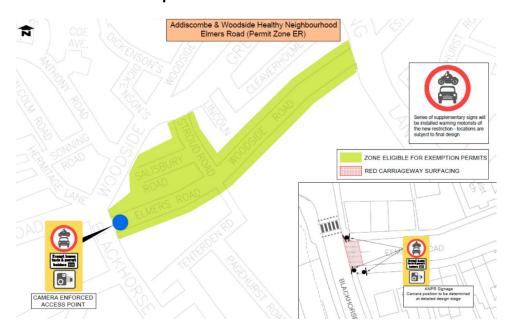
Albert Rd CHN Map



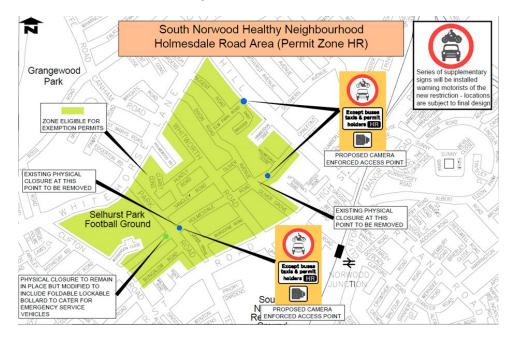
Dalmally Rd CHN map



Elmers Rd CHN map



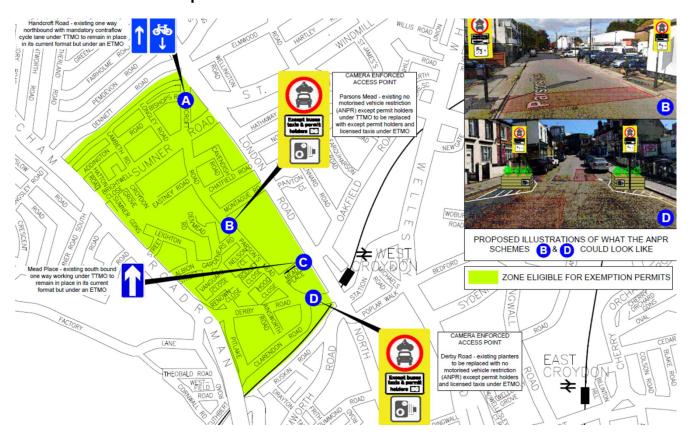
Holmesdale Rd CHN map



Kemerton Rd CHN map



Parsons Mead CHN map



Sutherland Rd CHN map





Appendix 1i.

Analysis of responses received from Statutory Consultation

| Ref | Responses received | | CHN | | | | | |
|--------------|--|--------------|----------------|--------------|----------------|------------------|-----------------|--------------------------------------|
| | | Albert Rd | Dalmally Rd | Elmers Rd | Kemerton Rd | Sutherland Rd | Parsons Mead | Total number across all CHN |
| | Responses from specific CHN email | 103 | 114 | 57 | 10 | 69 | 102 | 455 |
| | Responses from statutory process Getinvolved portal | 72 | 12 | 19 | 27 | 24 | 18 | 172 |
| 1 | Total responses received | 175 | 126 | 76 | 37 | 93 | 120 | 627 |
| | Number of responses related to permit enquiries and other queries | 86 | 106 | 56 | 23 | 60 | 95 | 426 |
| | Relevant responses specific to measures in CHN from both emails and getinvolved from total responses | 89 | 20 | 20 | 14 | 33 | 25 | 201 |
| | Number of support | 2 | 11 | 1 | 0 | 0 | 0 | 14 |
| 2 | Number of objections related to the schemes from getinvolved and emails | 87 | 9 | 19 | 14 | 33 | 25 | 187 |
| | Number of objections from within CHN via Getinvolved portal identified through postcodes | 44 | 1 | 4 | 1 | 4 | 1 | 55 |
| | Number of objections from outside of CHN via Getinvolved portal identified through postcodes | 25 | 6 | 13 | 6 | 19 | 12 | 81 |
| | Number of Objections via email related to specific measures (postcodes not provided) | 18 | 2 | 2 | 7 | 10 | 12 | 51 |
| 3 (check) | Total number of objections received via getinvolved and email | 87 | 9 | 19 | 14 | 33 | 25 | 187 |
| 4 | Analysis into key themes from total number of objections received(objectors gave more than one reason) | | | | | | | |
| а | Traffic displacement and access issues such as difficulties for sevice deliveries, increase journey times | 48% | 50% | 44% | 52% | 53% | 47% | |
| | Number of objections for Traffic displacement and access issues | 42 | 4 | 9 | 7 | 16 | 12 | 90 |
| b | Impact on community and environment (pollution, impact on mental well-being, personal safety etc) | | 23% | 12% | 29% | 30% | 25% | |
| c | Number of objections for impact on environment Financial driver(council introduced scheme to raise revenue) | 18% | 27% | | | 12% | 21% | 52 |
| | Number of objections for financial driver | 16 | 2 | 3 | 3 | 6 | 5 | 34 |
| d | Other (poor communications , inadequate signage , etc) | 6% | 0% | 24% | 0% | 5% | 7% | |
| | Number of objections for" Other" | 5 | | | | 2 | | |
| | % Total | 100% | 100% | 100% | 100% | 100% | 100% | |
| | Total number of objections received | 87 | 9 | 19 | 14 | 33 | 25 | 187 |

Appendix 2. Technical Assessments integral to the monitoring exercise

- 1.1 The objections received from both the "get involved" and specific email addresses were analysed and categorised into 4 key themes, in general one objection may contain numerous reasons. The key themes identified were:
 - a) **Traffic displacement and access** (including traffic displacement, increased congestion, increased vehicle journey times and reduced access to service vehicles)
 - b) **Financial drivers** (including CHN is seen as a revenue-making scheme, increasing household costs or taxes and negatively impacts businesses)
 - c) **Impacts on the community and environment** (including, increased pollution, impacts on safety and impacts on mental well-being,)
 - d) **Other** (including Poor communication about scheme, signage is inadequate/unclear/poor, and access to permits).
- 1.2 Theme 1: Traffic displacement and access issues accounts for approximately 50% of all objections received, 90 objections across all CHN

Traffic displacement issues: The objections received through the getinvolved surveys are related to traffic displacements on 1) roads which exist within the healthy neighbourhood areas but not restricted, 2) roads which adjoins healthy neighbourhoods and 3) main roads as a direct result of the restrictions. Similarly, residents who attended the drop-in sessions raised concerns about the level of traffic displacement in the surrounding areas and main roads. They raised concerns about the perceived increase in pollutant concentrations—along main roads which have residential frontages, schools, retail frontages and high pedestrian activities.

The outcome of the traffic monitoring exercise has demonstrated the following:

- a) a decrease in through traffic across all healthy neighbourhoods within the restricted roads.
- a decrease in traffic on some main roads and marginal increase in traffic on other main roads
- c) an increase in traffic in unrestricted roads which are within the HN areas
- d) an increase in traffic in residential roads adjoining the HN areas.

It should be noted that the comparison of traffic movements was only possible where we had previous data as baseline and in some cases no data exist pre- introduction of the schemes. The data is also a comparison of the 7-day average for two-way movements and some increases are considered to be marginal. The decrease in traffic movements has created an improved environment for residents conducive to walking and cycling. The nature of the current schemes i.e, the lack of a comprehensive set of measures within each HN have created "through "routes for drivers who can still use some residential roads. These unrestricted routes have to be addressed in order to create a consistent approach to improving the quality of the HN and ensure the safety benefits are widespread. Similarly, a few residential roads which adjoins the current HN are now subjected to "through "traffic movements. They all have to be treated to ensure a consistent approach to traffic reduction and improved environment. This can be an integral part of additional community engagement where the technical evidence can play a key part in a co-design process working collaboratively with those residents mostly affected and with those least affected.

Boundary roads: On boundary roads the technical assessments have indicated a mixed set of data, some main roads have experienced a decrease in through traffic movements whilst others have seen a small increase. Any increases in traffic movements are considered low as far as traffic movements on main roads are concerned. For example, the highest increase in

traffic movements on a main road in accordance with the data is along Morland Rd or approx. 3000 vehicles over a 7 day 24-hour period. This equates to 18 vehicles per hour on average. These counts were taken at a point in time during the year and in general traffic on main roads fluctuates throughout the year. Traffic movements are dependent upon various factors which can impact on the operation of the main road network. Behavioural change can play a significant role in how the road network is used by car drivers and how traffic flow can fluctuate throughout the year. More importantly, we have not received any concerns from Transport for London Buses with regard to delays on the main road network as a result of the HN measures in place, nor have we received any concerns from the emergency services about any specific part of the main road network in close proximity of any HN.

Traffic speed: The monitoring exercise has indicated a reduction in the 85% percentile speed within the healthy neighbourhoods where we had previous data to use as a comparison, (this is the speed at which 85% of drivers—considers this as a safe speed to travel under free flow condition). The range of speed reduction is between 1.6 to 5 mph—achieving a speed either under or close to the 20pmh speed limit. In general, it has been identified through research that a reduction of 1 mph can reduce road injury collision by 5-6%, more importantly the severity of injury collisions is less as speed is reduced to near or below 20 mph. Local highway authorities have a duty of care to improve road safety on the public highway. Section 39 of the Road Traffic Act 1988 imposes a statutory obligation on every Highway Authority to promote and improve road safety.

Road injury collisions (all severities) within HN: the monitoring exercise has made an assessment of road collisions in relation to the experimental scheme in place. The collision study was carried over a 28 month (not 36 months as normal practice dictates) before and 28 months after given the availability of data post implementation of the scheme. In summary, the study indicates a collision reduction in Albert Rd HN, Holmesdale Rd HN and in Parsons Mead. No change in Elmers Rd HN

Conversely, the study indicates an **increase in** Dalmally Rd HN and similarly an increase in Sutherland Rd HN. The next stage is to analyse in detail these collisions and identify measures which could reduce the risks of future occurrence. There is no change in Parsons Mead HN. As stated previously road collisions are multifactor events and attributable to poor drivers behaviour.

Road injury collisions (all severities) boundary roads: In contrast, there has been an increase in road injury collisions on boundary roads. In general, main roads have higher collision rates due to the high volume of traffic they carry and high level of exposure. In general, road collisions are multifactor events and is defined as "An accident is a rare, random, multifactor event always preceded by a situation in which one or more road users have failed to cope with the road environment" (Ref: Royal Society for the Prevention of Accidents "RoSPA" in brief). The high volume and traffic mix on main roads increase the exposure of road users; additionally poor driver behaviour can add to the increased risk of collision occurrence. In accordance with RoSPA 95% of all road injury collisions are attributable to poor drivers' behaviour. The council has a programme for reducing the severity of road collision integral to the Vision Zero programme funded by Transport for London.

Access issues: The Council has published information online which includes how the permit system works and eligibility for access. The information is very comprehensive and should assist residents in meeting some of their essential needs. The web site is very clear about the eligibility for permits and allows up to three permits per household. Residents can contact the council in advance if they have specific needs for travel arrangements from their home addresses. Access to emergency and other statutory service vehicles are retained. The web site information can be accessed via Exemption Permits | Croydon Council. The permit system includes the following

- Resident exemptions
- Temporary resident exemptions
- Carers Exemptions (up to 12 months as a regular carer)
- Blue Badge Exemptions

Nursery and school staff exemptions

1.3 Theme 2: Impact on the environment due to increase in pollution etc 52 objections received

Officers view: The monitoring exercise has indicated a decrease in the level of pollutant concentration especially NO2 which is the dominant pollutants insofar as vehicular emissions are concerned. The level of pollutant concentration is well below the mean objectives for the UK. In general, the measures within the healthy neighbourhoods have contributed to an improved air quality. Some residents have commented on the benefits of perceived improved air quality as a direct result from lower volumes of traffic through their restricted streets.

1.4 Theme 3: Revenue raising scheme, 34 objections received

Officers View: The council is obliged to ring fence revenues from both parking enforcement and enforcement of traffic regulations for the purpose of maintaining the public highway in line with current legislation.

1.5 Theme 4:" Other" such as poor signage, poor communications from the council, no opportunity to participate etc, 11 objections received

Officers View: A few of the objections are related to poor communications about the entire healthy neighbourhood programme resulting in poor relationship between the council and residents. The manner in which these schemes were introduced has also raised objections given that residents felt they were no engagement and no opportunities to have they say. Additionally, a few residents felt that the current signage is confusing and can cause drivers to make u- turns just before the camera locations resulting in an increased risk to accidents. Signage for any highway schemes is designed in accordance with the Traffic Signs Regulations and General Directions 2016.

1.6 Community Engagements: Drop-in Sessions

Outcome of the Drop-in sessions held during February and March 2023

| CHN Areas | Wards | Venues | Dates | Times |
|--------------------------------------|---|---|--|-------|
| Dalmally Rd/ Ellmers/ Kemerton | Addiscombe East and Addiscombe West | Woodside Primary School Morland Rd CR06NF | Tuesday 8th Feb Wednesday 9th Feb | 5-8pm |
| Holmesdale Rd | South Norwood | Stanley Arts Café 12 South Norwood Hill, SW256AB | Wednesday 15th Feb Thursday 16th Feb | 5-8pm |
| Albert Rd | Woodside | St Marks Church Albert Rd, South Norwood, SE254JE | Monday 20 th Feb Wednesday 22nd Feb | 5-8pm |
| Parsons Mead/ Sutherland | Broad Green | Broad Green Library 89 Canterbury Rd CR03HA | Thursday 2 nd March Monday 6 th March | 5-8pm |

1.7 Summary of Findings from each CHN Drop-in session (key themes)

| CHN Drop-in session | What some attendees liked about it (key comments) | What other attendees disliked about it (key comments) |
|---|--|--|
| Albert Rd | Some residents think that the roads within the CHN now feel quieter, less polluted and safer, making it more pleasant for people to walk and cycle | There were concerns that the CHN had displaced traffic (and pollution) onto other roads The CHN is making it more difficult for some residents to travel around the area by car Some roads now have vehicles needing to turn around as they can't get through It is making it harder to park in some areas, Some residents were confused about the permits process. Signage was also highlighted as an issue Safety concerns |
| Damally Rd | Reduced level of through traffic, safer and quieter streets | Money making scheme, no engagement, objectives were never made clear and communicated |
| Elmers Rd | Reduced level of through traffic, safer and quieter streets | Should be removed. Increased fear of crime, not addressing speeding, encourage U turns, displaced traffic |
| Kemerton Rd | No through traffic | Should be removed. Bollards look ugly, difficulty in turning around due to closure, increase in anti-social behaviour and crime |
| Holmesdale Rd | Reduced level of through traffic, safer and quieter streets | Traffic displacement on main roads and other roads within CHN, not addressed speeding, objectives never communicated by council, money making scheme, perception in fear of crime increasing poses danger to women. |
| Broad Green (Surtherland Rd and Parsons Mead | Only two attendees stated they felt the area had improved | Displaced traffic onto Wentworth and Priory Roads, and on London Rd and Mitcham Rd, speeding issues and drivers frustrated at congested residential roads taking displaced traffic |

1.8 Community Engagements: Outcome of the Scientific Resident Polling

- 49% of all those who live within HN's were aware of HN in their area
- 58% were confident about their understanding of HN and the general idea that HN aimed at traffic reduction and improve the quality of their area was broadly understood.
- 6 out of 10 people surveyed were aware of the permit system
- Support for HN amongst those surveyed was around 58-61%
- There is 37% level of satisfaction within the Albert Rd CHN, lowest level within the cohort of CHN, in comparison with Holmesdale 39%, Dalmally (include Kemerton and Elmers Rd)50 %and Parsons Mead and Sutherland 53%
- Those who were surveyed acknowledged the improvement in the quality of their neighbourhood (road safety and more active travel) whilst also acknowledging the impact on bordering streets
- 1in 3 who was polled said that less traffic is the best thing about HN
- 1in 3 who was polled said it has encouraged more active travel
- Nearly half of those polled (48%) from boundary roads said diverting traffic on boundary roads was the main contention whilst 38% of those polled within HN said the same thing
- 7 in 10 residents in HN expressed the desire to be more involved "Local communities should be more involved in the planning and implementation of Healthy neighbourhoods"
- There is a perception that the narrative about camera enforcement was not clear, and people felt this was a finance driven scheme

• 21% of all those within the HN areas said they were "very likely" to commit to engaging with the council, whilst 45% said they were "quite likely" committed.

Quantitative Assessments and outcome

- 1.9 General status of roads within experimental Healthy Neighbourhoods: At the time of their introduction a few roads which were considered "through routes" were closed to traffic by planters and later changed to restricted access measures. Not all roads within the healthy neighbourhoods have access restrictions and a few roads situated just outside of the HN boundaries were excluded. The unrestricted roads within the HN's are used by through traffic wishing to gain access to main roads, causing displacement in these roads. Similarly, roads just outside of HN's have suffered from traffic displacement as a result of the HN restrictions. The traffic monitoring exercise which was carried out has identified the level of displaced traffic in these roads and considerations to be given to any adjustments to ensure a coherent set of measures to maximise road safety benefits and further improvements to the quality of the urban space.
- 1.10 Summary of traffic survey methodology: The adopted methodology relies on the analysis of before and after-intervention data from a number of different sources, captured from survey locations across the study area. As such, analysis has been limited to locations where both before and after data is available and change can be established. For analysis, the baseline data is taken from historic surveys taken between 2017 and 2019, used to inform various schemes and commissions from LBC and TfL. The Automatic Traffic Counts largely cover internal, neighbourhood roads sites. For boundary roads, baseline data has largely been taken from DfT permanent road traffic counters. It should be noted that these counters do not record speed and there is therefore an absence in 'before' speed data for many boundary road sites.
- 1.11 Cycle and Pedestrian Counts: Numerous permanent Vivacity data sensors were introduced across the project area after the introduction of the Healthy Neighbourhoods. This data has been used to understand trends in pedal cycle and pedestrian flows since installation. Whilst there is no 'before and after' data, information on flows has been obtained for a 12-month period post-introduction of the HNs. The analysis was conducted to assess changes in cycle and pedestrian volumes from March 2022 to March 2023
- 1.12 **General Traffic trends**: There is evidence to suggest that the borough may have experienced a sustained modal shift following the COVID-19 pandemic. Data collected from DfT counter sites across the borough (largely on principal or major roads) shows an increase in cycles and a decrease in vehicles from 2019 to 2022. Cycle flows were 11735, equivalent to a 29% increase on 2019 counts. The table below shows the trends in mode types from 2019-22.

| Mode Type | 2019 | 2022 | % increase or decrease |
|--------------|--------|---------|------------------------|
| Cycles | 9119 | 11735 | +29% |
| P2W | 24534 | 32055 | +31% |
| | 112038 | | |
| Cars | 5 | 1031463 | -8% |
| Buses | 27033 | 26128 | -3% |
| LGV | 206434 | 220557 | +7% |
| HGV | 35285 | 41253 | +17% |

1.13 **Journey times evaluation:** Traffic data pertaining to journey times is usually supplied by The Floow. They collect raw traffic data using telematics technology from mobility sensors, tracking journeys made by car. The time taken to get between locations can then be compared

for different dates of reference. The data comes from app data of drivers on specific insurance policies which request vehicle tracking. The data is provided as an anonymous, 'big data' dataset. It reports on various metrics relevant to car insurers such as speed, smoothness and distraction. The travel times are estimated using GPS data with locational measures given a temporal match. Errors in either of these measures, however, would affect the reliability of the journey times calculated. Large organisations such as the DfT complete a process of data validation when using telematics data as a means of quality assurance. Therefore, given the gaps in the data set and potential anomalies it was considered not practicable to report on journey times given the inconsistencies. Furthermore, journey times can also be provided by Transport for London through their "ibus" data, unfortunately they only keep data for two years at a time. Again, not possible to retrieve data over the study period.

In general journey times on the main road network are affected on a daily basis given the nature of traffic mix, volume fluctuations and potential occurrence of incidents at a particular location which can impact on roads on a wider basis.

1.14 Traffic and Road Safety Analyses (CHN Albert, Dalmally and Elmers)

| | | | Г | T |
|-----|--|-----------------------------|-------------------------|-----------------------|
| | Summary of monitoring data | | | |
| | from Experimental CHN as | | | |
| | compared with Baseline Data | | | |
| | | | | CHN Elmers Rd and |
| Ref | | CHN Albert Rd | CHN Dalmally Rd | CHN Kemerton Rd |
| | Access Restricted Roads | Albert Rd / Eldon Rd,Albert | | |
| | within CHN | Rd / Harrington Rd, Apsely | | |
| | | Rd/ Albert Rd and Belfast | Dalmally Rd i/w | |
| | | Rd /Albert Rd | Blackhorse Rd | Elmers Rd |
| | | | | |
| | Monitoring Themes | | | |
| 1 | Traffic Movements over 24 hrs for 7 days two way | | | |
| 1a | Traffic Movements in access | Decrease from 1271 | Decrease from 4150 to | Ave Decrease from |
| | restricted roads and / or within | vehs to 1121 vehs in | 3465 vehs across | 1346 to 995 vehs |
| | close proximity of restrictions | Harrington Rd , | roads within restricted | across restricted |
| | - | | cell | roads |
| 1b | Traffic movements in | Increase from 1285 to | As above | NA |
| | unrestricted roads within | 1545 vehs in Eldon Park | | |
| | CHN | | | |
| 1c | Traffic movements on | Decrease from 6890 to | N/A | Ave Decrease from |
| | residential roads just outside | 5660 vehs in all roads | | 1097 to 839 vehs in |
| | of CHN | outside of chn restrictions | | roads just outside of |
| | | | | restricted area |
| | | | | |
| 2 | Boundary Roads | | | |
| 2a | , | Decrease from 13068 to | Increase from 6225 | Increase from 6225 |
| | boundary roads | 12073 vehs along | vehs to 9354 vehs | vehs to 9354 vehs |
| | | Portland Rd | along Morland Rd , | along Morland Rd , |
| | | | Lower addiscombe Rd | Lower addiscombe Rd |
| | | Increase from 19101 to | | |
| | | 20211 vehs along Penge | | |
| | | Rd | | |
| | | | | |
| 3 | Road Safety | | | |
| | - | 1 | 1 | 1 |

| 3a | · | 85%ile speed from 23 mph to 18mph in restricted | 85%ile speeds from | Ave Decrease in 85%ile speed from 27mph to 23 mph in restricted cell |
|----|---|--|---|---|
| | | | | average 85ile% speed below 30mph |
| 1 | Road Collisions within CHN cell 28 months to April 2020 | 4 (slight) | 1(slight) | 1 (slight) |
| | Road Collisions within CHN cell 28 months to 2022 | 3(slight) | 3 (2 serious + 1 slight) | 1 (slight) |
| | change based on collisions on ave per year over 27 months | 1 (slight) | 3 (2 serious + 1 slight) | 0 |
| | Road Collisions on Boundary Roads 28 months to April 2020 | 137 | 40 | 22 |
| | Road collision on Boundary Roads 27 months to 2022 | 161 | 52 | 40 |
| | change based on collisions per year on ave over 27 months | 24 | 12 | 18 |
| | | | | |
| 4 | Traffic Mix within CHN cell | | | |
| | Sensors | between March 2022 to March 2023, as smart sensors were introduced post CHN | March 2023, as smart sensors were introduced post CHN | Negligible change between March 2022 to March 2023, as smart sensors were introduced post CHN |
| | Sensors | between March 2022 to March 2023, as smart sensors were introduced | Negligible change between March 2022 to March 2023, as smart sensors were introduced post CHN | Negligible change between March 2022 to March 2023, as smart sensors were introduced post CHN |
| | | | | |
| | Key | | | |
| | Decrease | | Increase | |

1.15 Traffic and Road Safety Analyses (CHN Holmesdale, Parsons Mead and Sutherland)

| | Summary of monitoring data from Experimental CHN as compared with Baseline Data | | | |
|-----|---|--------------------|------------------------|----------------|
| Ref | | CHN Holmesdale | CHN Parsons Mead | CHN Sutherland |
| | Access Restricted Roads | Holmesdale and Elm | Parsons Mead and Derby | |
| | within CHN | Park Rd | Rd | Sutherland Rd |
| | | | | |
| | Monitoring Themes | | | |
| 1 | Traffic Movements comparing 7 day ave two way movements May 2019 vs May 2023 | | | |

| | 1a | Traffic Movements in access | Ave Decrease from | Decrease of 3287 vehs | Decrease of 79 |
|----------|-----|--|--|--|--------------------------------|
| | _ | restricted roads and / or | | from 6656 to 3369 vehs in | vehs from 311 to |
| | | within close proximity of | across most roads | Derby Road | 232 vehs in |
| | | restrictions | within cell. | | Lambeth Rd |
| | | | | | Increase of 21 |
| | | | | | vehs from 895 to |
| | | | | | 916 vehs in |
| | | | | | Fairholme Rd, |
| | | | | | increase of 121 |
| | | | | | vehs from 677 to |
| | | | | | 798 vehs in |
| | | | | | Pemdevon Rd |
| | | Traffic movements in | Increase in Dixon Rd | NA | NA |
| | | unrestricted roads within | from 810 vehs to 1198 | | |
| | | CHN | vehs | | |
| | | Traffic movements on | N/A | NA | Increase of 278 |
| | | residential roads just outside | | | vehs from 930 to |
| | | of CHN | | | 1208 vehs in |
| | | | | | Priority Road, increase of 972 |
| | | | | | vehs from 962 to |
| | | | | | 1934 vehs in |
| | | | | | Wentworth Rd |
| | | | | | - Trontinorum rta |
| 2 | | Paundani Paada | | | |
| | | Boundary Roads Traffic movements along | Docrosco, along Park | Decrease of 14520 vehs (| Decrease in |
| | | boundary roads | Decrease along Park Rd, Decrease along | ` | Canterbury Rd |
| | | boundary roads | South Norwood Hill, | along London Rd, and | Caritorbary rea |
| | | | | decrease of 11531 (from | |
| | | | Norwood Hill | 25197 to 13666 vehs) along | |
| | | | | Sumner Rd. | |
| | | | | Increase of 6298 vehs | Increase of 414 |
| | | | | from 26544 to 32842 vehs | vehs from 20229 to |
| | | | | along Roman Way | 20643 vehs in |
| | | | | | Mitcham Rd |
| | | | | | |
| 3 | | Road Safety | | | |
| | 3a | 85%ile speed within cell | Decrease of 5 mph | <u> </u> | Decrease of 2 mph |
| | | | from 27 mph to | • | in Fairholme and |
| | | | 22mph on ave across | , · · · · · · · · · · · · · · · · · · · | Pemdevon to 18 |
| | | | CHN cell | - | mph |
| | 2 h | 85%ile speed on boundary | 85%ile speed is below | Lambeth Rd to 14.1 mph 85%ile speed below 30mph | 85%ile speed below |
| | | roads | 30mph limit | limit | 30mph limit |
| | | Road Collisions within CHN | 10 (2 serious + 8 | 6 (5 slight + 1 serious) | 3 (slight) |
| | | cell 28 months to April 2020 | slight) | (5 Singilit : 1 Soriodo) | o (ongrit) |
| <u> </u> | | Road Collisions within CHN | 2 (serious) | 6(5 slight +1 serious) | 7 (slight) |
| | | cell 28 months to 2022 | _ (5511545) | or o singific i i sorious) | , (Singrit) |
| | | | 8 (slight) | 0 | 4 (slight) |
| | | on ave per year over 27 | o (slight) | | T (Sligill) |
| | | months | | | |
| | | Road Collisions on Boundary | 53 | 73 | 80 |
| | | Roads 28 months to April | | | |
| | | 2020 | | | |
| | | | l . | 1 | I . |

| _ | Road collision on Boundary Roads 27 months to 2022 | 64 | 101 | 110 |
|--------------|---|-----------------------------------|---|---|
| | change based on collisions per year on ave over 27 months | 11 | 28 | 30 |
| 4 | Traffic Mix within CHN cell | | | |
| | Cycling trends using Smart Sensors | - | Negligible change between March 2022 to March 2023, as smart sensors were introduced post CHN | Negligible change between March 2022 to March 2023, as smart sensors were introduced post CHN |
| | Pedestrian trends using Smart Sensors | March 2023, as smart sensors were | Negligible change between March 2022 to March 2023, as smart sensors were introduced post CHN | Negligible change between March 2022 to March 2023, as smart sensors were introduced post CHN |
| | | | | |
| Key | | | | |
| Decrea se | | Increase | | |

1.16 **Air Quality Assessment**: In general, the main pollutant of concern in Croydon is NO2 and road transport is the main source of NO2 and particulate matter. The average mean objectives for NO2, PM10 and PM2.5 are listed below:

| Pollutants | Average Mean Objectives for UK (microgram is a unit of mass equal to one millionth of a gram) |
|------------|---|
| NO2 | 40 microgram /m3 |
| PM10 | 40 microgram /m3 |
| PM2.5 | 20 microgram /m3 |

1.17 The traffic control measures implemented as part of the Healthy Neighbourhoods' scheme have the potential to result in air quality impacts from changes in traffic emissions associated with the measures, due to rerouting of traffic near the measures and on the wider road network. Therefore, an air quality assessment¹ was undertaken to determine the potential air quality impacts of the Health Neighbourhoods. To determine the impacts, air quality concentrations were predicted at selected receptors (e.g., residential properties, schools or hospitals) located within each of the Healthy Neighbourhoods and surrounding roads using an air quality model. Traffic data was provided for 2019, before the measures were in place, and for 2022, with the measures in place. To determine the effects of the measures alone, rather than changes to background air quality, changes in vehicle emissions, and traffic growth between 2019 and 2022, the 2019 traffic data was factored to 2022 to enable a fairer comparison of the with and without measures scenarios. Monitoring data was used to verify the model outputs by

comparing the annual mean 2022 monitored and modelled concentrations and adjusting the model outputs to account for discrepancies between the monitored and modelled concentrations. The results presented in the table show the receptors within each Healthy Neighbourhood that are predicted to have the largest improvement and largest worsening in NO_2 concentrations resulting from the Healthy Neighbourhood measures. It should be noted that the largest concentrations and changes in concentrations were for NO_2 , and changes in PM_{10} and $PM_{2.5}$ were determined as being negligible in accordance with best practice guidance significance criteria

Conclusion:

1.18 As indicated in the table below, it can be concluded that the measures may have resulted in an overall improvement in air quality across most of the Healthy Neighbourhoods, with some receptors seeing a moderate beneficial decrease in NO2 concentrations. Some receptors were predicted to experience an increase in pollutants as a result of the Healthy Neighbourhoods, which is likely to be due to rerouted traffic on adjacent roads. However, in terms of significance, these increases were negligible in accordance with best practice guidance significance criteria. Pollutant concentrations at all assessed receptors within the Healthy Neighbourhoods and surrounding areas were predicted to be below the Air Quality Strategy objectives for NO2, PM10 and PM2.5. In addition, there is an overall reduction in emissions of NOx, PM10, PM2.5 and CO2 as a result of the Healthy Neighbourhood measures.

1.19 Table showing results of assessments

Modelling Results for the Receptors with the Largest Improvement and Worsening in each Healthy Neighbourhood

| | | Annual M | ean NO ₂ Concentration | on (μg/m³) | Impact Descriptor using Best Practice Guidance Significance Criteria | | | |
|----------|-------------------------------------|-------------------------|-----------------------------------|------------|--|--|--|--|
| Receptor | Location | 2022 (without measures) | 2022 (with measures) | Change | | | | |
| | | Holmesdale Road He | althy Neighbourhood | *t | | | | |
| HR9 | South Norwood Hill | 28.3 | 25.1 | -3.2 | Slight Beneficial | | | |
| | Elmers Road Healthy Neighbourhood* | | | | | | | |
| ER6 | Lower Addiscombe Road | 27.9 | 26.5 | -1.4 | Negligible | | | |
| | Dalmally Road Healthy Neighbourhood | | | | | | | |
| DR8 | Lower Addiscombe Road | 30.7 | 24.4 | -6.3 | Moderate Beneficial | | | |
| KR9** | Morland Road | 22.6 | 22.7 | 0.1 | Negligible | | | |
| | | Kemerton Road Hea | althy Neighbourhood | 1 | | | | |
| KR13 | Lower Addiscombe Road | 34.0 | 31.0 | -3.0 | Moderate Beneficial | | | |
| AR9** | Portland Road | 22.6 | 24.5 | 1.9 | Negligible | | | |
| | • | Parsons Mead Hea | Ithy Neighbourhood | | | | | |

| SR1** | Sumner Road | 33.9 | 28.0 | -5.9 | Moderate Beneficial | | |
|-------|---------------------------------------|-------------------|------------------|------|---------------------|--|--|
| PM3 | Roman Way | 24.9 | 25.8 | 0.9 | Negligible | | |
| | Sutherland Road Healthy Neighbourhood | | | | | | |
| SR1 | Sumner Road | 33.9 | 28.0 | -5.9 | Moderate Beneficial | | |
| SR6 | Wentworth Road | 22.2 | 22.4 | 0.2 | Negligible | | |
| | | Albert Road Healt | hy Neighbourhood | | | | |
| AR13 | Elmers End Road | 31.0 | 27.3 | -3.7 | Moderate Beneficial | | |
| AR9 | Portland Road | 22.6 | 24.5 | 1.9 | Negligible | | |

^{*} At the Holmesdale Road and Elmers Road Healthy Neighbourhoods, none of the selected receptors were predicted to experience worsening in air quality as a result of the Healthy Neighbourhood measures.

^{**} This receptor has an ID associated with a different Healthy Neighbourhood but represents a receptor affected by more than one Healthy Neighbourhood.

| negligible |
|---------------------|
| slightly beneficial |
| moderate beneficial |

Emission Impacts

1.20 Total emissions of NOx, PM10, PM2.5 and CO2 have been calculated for the 2022 growth-factored (without the measures) and 2022 (with the measures) scenarios. The emissions have been calculated using the entire traffic datasets provided, and therefore take into consideration the impact of all Healthy Neighbourhoods combined. The total emissions are presented in the table below:

Pollutant Emissions Across the Study Area

| | Total NOx Emissions (tonnes/year) | Total PM ₁₀ Emissions (tonnes/year) | Total PM _{2.5} Emissions (tonnes/year) | Total Direct CO ₂ Emissions* (tonnes/year) | Total Indirect CO ₂ e Emissions** (tonnes/year) | |
|--|---|--|---|---|--|--|
| 2022 growth- factored (without measures) | 62.8 | 10.6 | 5.6 | 51,261.6 | 395.3 | |
| 2022 (with measures) | 48.3 | 8.4 | 4.4 | 40,819.1 | 295.2 | |
| Change in emissions | -14.5 | -2.2 | -1.2 | -10,442.5 | -100.1 | |

^{*}Direct CO₂ includes emissions from the vehicle tailpipe.

^{**} Indirect CO_2e (CO_2 equivalent) emissions are associated with the charging of the batteries of electric and plug-in hybrid

The results indicate that there is predicted to be a decrease in emissions across the study area for all pollutants with the Healthy Neighbourhoods in place. CO2 does not have a direct impact on human health, however, it is a greenhouse gas and therefore the total change in emissions for this pollutant has also been considered. The CO2 emissions are split into direct emissions, which include emissions directly from the vehicle, and indirect CO2e emissions, which are the emissions associated with electric vehicle charging. Overall, there is predicted to be a decrease in total emissions of all pollutants across the study area, with the Healthy Neighbourhood measures in place.



Appendix 1i.

Analysis of responses received from Statutory Consultation

| Ref | Responses received | CHN | | | | | | |
|--------------|--|--------------|----------------|--------------|----------------|------------------|-----------------|--------------------------------------|
| | | Albert Rd | Dalmally Rd | Elmers Rd | Kemerton Rd | Sutherland Rd | Parsons Mead | Total number across all CHN |
| | Responses from specific CHN email | 103 | 114 | 57 | 10 | 69 | 102 | 455 |
| | Responses from statutory process Getinvolved portal | 72 | 12 | 19 | 27 | 24 | 18 | 172 |
| 1 | Total responses received | 175 | 126 | 76 | 37 | 93 | 120 | 627 |
| | Number of responses related to permit enquiries and other queries | 86 | 106 | 56 | 23 | 60 | 95 | 426 |
| | Relevant responses specific to measures in CHN from both emails and getinvolved from total responses | 89 | 20 | 20 | 14 | 33 | 25 | 201 |
| | Number of support | 2 | 11 | 1 | 0 | 0 | 0 | 14 |
| 2 | Number of objections related to the schemes from getinvolved and emails | 87 | 9 | 19 | 14 | 33 | 25 | 187 |
| | Number of objections from within CHN via Getinvolved portal identified through postcodes | 44 | 1 | 4 | 1 | 4 | 1 | 55 |
| | Number of objections from outside of CHN via Getinvolved portal identified through postcodes | 25 | 6 | 13 | 6 | 19 | 12 | 81 |
| | Number of Objections via email related to specific measures (postcodes not provided) | 18 | 2 | 2 | 7 | 10 | 12 | 51 |
| 3 (check) | Total number of objections received via getinvolved and email | 87 | 9 | 19 | 14 | 33 | 25 | 187 |
| 4 | Analysis into key themes from total number of objections received(objectors gave more than one reason) | | | | | | | |
| а | Traffic displacement and access issues such as difficulties for sevice deliveries, increase journey times | 48% | 50% | 44% | 52% | 53% | 47% | |
| | Number of objections for Traffic displacement and access issues | 42 | 4 | 9 | 7 | 16 | 12 | 90 |
| b | Impact on community and environment (pollution, impact on mental well-being, personal safety etc) | | 23% | 12% | 29% | 30% | 25% | |
| c | Number of objections for impact on environment Financial driver(council introduced scheme to raise revenue) | 18% | 27% | | | 12% | 21% | 52 |
| | Number of objections for financial driver | 16 | 2 | 3 | 3 | 6 | 5 | 34 |
| d | Other (poor communications , inadequate signage , etc) | 6% | 0% | 24% | 0% | 5% | 7% | |
| | Number of objections for" Other" | 5 | | | | 2 | | |
| | % Total | 100% | 100% | 100% | 100% | 100% | 100% | |
| | Total number of objections received | 87 | 9 | 19 | 14 | 33 | 25 | 187 |

Appendix 2 Technical Assessments integral to the monitoring exercise

- 1.1 The objections received from both the "get involved" and specific email addresses were analysed and categorised into 4 key themes, in general one objection may contain numerous reasons. The key themes identified were:
 - a) **Traffic displacement and access** (including traffic displacement, increased congestion, increased vehicle journey times and reduced access to service vehicles)
 - b) **Financial drivers** (including CHN is seen as a revenue-making scheme, increasing household costs or taxes and negatively impacts businesses)
 - c) **Impacts on the community and environment** (including, increased pollution, impacts on safety and impacts on mental well-being,)
 - d) **Other** (including Poor communication about scheme, signage is inadequate/unclear/poor, and access to permits).
- 1.2 Theme 1: Traffic displacement and access issues accounts for approximately 50% of all objections received, 90 objections across all CHN

Traffic displacement issues: The objections received through the getinvolved surveys are related to traffic displacements on 1) roads which exist within the healthy neighbourhood areas but not restricted, 2) roads which adjoins healthy neighbourhoods and 3) main roads as a direct result of the restrictions. Similarly, residents who attended the drop-in sessions raised concerns about the level of traffic displacement in the surrounding areas and main roads. They raised concerns about the perceived increase in pollutant concentrations—along main roads which have residential frontages, schools, retail frontages and high pedestrian activities.

The outcome of the traffic monitoring exercise has demonstrated the following:

- a) a decrease in through traffic across all healthy neighbourhoods within the restricted roads.
- a decrease in traffic on some main roads and marginal increase in traffic on other main roads
- c) an increase in traffic in unrestricted roads which are within the HN areas
- d) an increase in traffic in residential roads adjoining the HN areas.

It should be noted that the comparison of traffic movements was only possible where we had previous data as baseline and in some cases no data exist pre- introduction of the schemes. The data is also a comparison of the 7-day average for two-way movements and some increases are considered to be marginal. The decrease in traffic movements has created an improved environment for residents conducive to walking and cycling. The nature of the current schemes i.e, the lack of a comprehensive set of measures within each HN have created "through "routes for drivers who can still use some residential roads. These unrestricted routes have to be addressed in order to create a consistent approach to improving the quality of the HN and ensure the safety benefits are widespread. Similarly, a few residential roads which adjoins the current HN are now subjected to "through "traffic movements. They all have to be treated to ensure a consistent approach to traffic reduction and improved environment. This can be an integral part of additional community engagement where the technical evidence can play a key part in a co-design process working collaboratively with those residents mostly affected and with those least affected.

Boundary roads: On boundary roads the technical assessments have indicated a mixed set of data, some main roads have experienced a decrease in through traffic movements whilst others have seen a small increase. Any increases in traffic movements are considered low as far as traffic movements on main roads are concerned. For example, the highest increase in

traffic movements on a main road in accordance with the data is along Morland Rd or approx. 3000 vehicles over a 7 day 24-hour period. This equates to 18 vehicles per hour on average. These counts were taken at a point in time during the year and in general traffic on main roads fluctuates throughout the year. Traffic movements are dependent upon various factors which can impact on the operation of the main road network. Behavioural change can play a significant role in how the road network is used by car drivers and how traffic flow can fluctuate throughout the year. More importantly, we have not received any concerns from Transport for London Buses with regard to delays on the main road network as a result of the HN measures in place, nor have we received any concerns from the emergency services about any specific part of the main road network in close proximity of any HN.

Traffic speed: The monitoring exercise has indicated a reduction in the 85% percentile speed within the healthy neighbourhoods where we had previous data to use as a comparison, (this is the speed at which 85% of drivers—considers this as a safe speed to travel under free flow condition). The range of speed reduction is between 1.6 to 5 mph—achieving a speed either under or close to the 20pmh speed limit. In general, it has been identified through research that a reduction of 1 mph can reduce road injury collision by 5-6%, more importantly the severity of injury collisions is less as speed is reduced to near or below 20 mph. Local highway authorities have a duty of care to improve road safety on the public highway. Section 39 of the Road Traffic Act 1988 imposes a statutory obligation on every Highway Authority to promote and improve road safety.

Road injury collisions (all severities) within HN: the monitoring exercise has made an assessment of road collisions in relation to the experimental scheme in place. The collision study was carried over a 28 month (not 36 months as normal practice dictates) before and 28 months after given the availability of data post implementation of the scheme. In summary, the study indicates a collision reduction in Albert Rd HN, Holmesdale Rd HN and in Parsons Mead. No change in Elmers Rd HN

Conversely, the study indicates an **increase in** Dalmally Rd HN and similarly an increase in Sutherland Rd HN. The next stage is to analyse in detail these collisions and identify measures which could reduce the risks of future occurrence. There is no change in Parsons Mead HN. As stated previously road collisions are multifactor events and attributable to poor drivers behaviour.

Road injury collisions (all severities) boundary roads: In contrast, there has been an increase in road injury collisions on boundary roads. In general, main roads have higher collision rates due to the high volume of traffic they carry and high level of exposure. In general, road collisions are multifactor events and is defined as "An accident is a rare, random, multifactor event always preceded by a situation in which one or more road users have failed to cope with the road environment" (Ref: Royal Society for the Prevention of Accidents "RoSPA" in brief). The high volume and traffic mix on main roads increase the exposure of road users; additionally poor driver behaviour can add to the increased risk of collision occurrence. In accordance with RoSPA 95% of all road injury collisions are attributable to poor drivers' behaviour. The council has a programme for reducing the severity of road collision integral to the Vision Zero programme funded by Transport for London.

Access issues: The Council has published information online which includes how the permit system works and eligibility for access. The information is very comprehensive and should assist residents in meeting some of their essential needs. The web site is very clear about the eligibility for permits and allows up to three permits per household. Residents can contact the council in advance if they have specific needs for travel arrangements from their home addresses. Access to emergency and other statutory service vehicles are retained. The web site information can be accessed via Exemption Permits | Croydon Council. The permit system includes the following

- Resident exemptions
- Temporary resident exemptions
- Carers Exemptions (up to 12 months as a regular carer)
- Blue Badge Exemptions

Nursery and school staff exemptions

1.3 Theme 2: Impact on the environment due to increase in pollution etc 52 objections received

Officers view: The monitoring exercise has indicated a decrease in the level of pollutant concentration especially NO2 which is the dominant pollutants insofar as vehicular emissions are concerned. The level of pollutant concentration is well below the mean objectives for the UK. In general, the measures within the healthy neighbourhoods have contributed to an improved air quality. Some residents have commented on the benefits of perceived improved air quality as a direct result from lower volumes of traffic through their restricted streets.

1.4 Theme 3: Revenue raising scheme, 34 objections received

Officers View: The council is obliged to ring fence revenues from both parking enforcement and enforcement of traffic regulations for the purpose of maintaining the public highway in line with current legislation.

1.5 Theme 4:" Other" such as poor signage, poor communications from the council, no opportunity to participate etc, 11 objections received

Officers View: A few of the objections are related to poor communications about the entire healthy neighbourhood programme resulting in poor relationship between the council and residents. The manner in which these schemes were introduced has also raised objections given that residents felt they were no engagement and no opportunities to have they say. Additionally, a few residents felt that the current signage is confusing and can cause drivers to make u- turns just before the camera locations resulting in an increased risk to accidents. Signage for any highway schemes is designed in accordance with the Traffic Signs Regulations and General Directions 2016.

Holmesdale CHN Statutory Consultation analysis

| | Analysis of Objections received from both emails and statutory consultation through Getinvolved survey portal from Holmesdale CHN | |
|-----------|---|------------|
| Ref | Responses received | CHN |
| | | Holmesdale |
| | Responses from specific CHN email | 163 |
| | Responses from statutory process Getinvolved portal | 79 |
| 1 | Total responses received | 242 |
| | Number of responses related to permit enquiries and other queries | 135 |
| | Relevant responses specific to measures in CHN from both emails and getinvolved from total responses | 104 |
| | Number of support | 23 |
| 2 | Number of objections related to the schemes from getinvolved and emails | 81 |
| | Number of objections from within CHN via Getinvolved portal identified through postcodes | 29 |
| | Number of objections from outside of CHN via Getinvolved portal identified through postcodes | 22 |
| | Number of Objections via email related to specific measures (postcodes not provided) | 30 |
| 3 (check) | Total number of objections received via getinvolved and email | 81 |
| 4 | Analysis into key themes from total number of objections received(objectors gave more than one reason) | |
| а | Traffic displacement and access issues such as difficulties for sevice deliveries, increase journey times | 47% |
| | Number of objections for Traffic displacement and access issues | 38 |
| b | Impact on community and environment (pollution, impact on mental well-being, personal safety etc) | 26% |
| | Number of objections for impact on environment | 21 |
| С | Financial driver(council introduced scheme to raise revenue) | 20% |
| | Number of objections for financial driver | 16 |
| d | Other (poor communications, inadequate signage, etc) | 7% |
| | Number of objections for" Other" | 6 |
| | % Total | 100% |
| | | 81 |

Technical Assessments integral to the monitoring exercise carried out for Holmesdale CHN

- 1.1 The objections received from both the "get involved" and specific email addresses were analysed and categorised into 4 key themes, in general one objection may contain numerous reasons. The key themes identified were:
 - e) **Traffic displacement and access** (including traffic displacement, increased congestion, increased vehicle journey times and reduced access to service vehicles)
 - f) **Financial drivers** (including CHN is seen as a revenue-making scheme, increasing household costs or taxes and negatively impacts businesses)
 - g) **Impacts on the community and environment** (including, increased pollution, impacts on safety and impacts on mental well-being,)
 - h) **Other** (including Poor communication about scheme, signage is inadequate/unclear/poor, and access to permits).
- 1.2 Theme 1: Traffic displacement and access issues accounts for approximately 47% of all objections received, 38 objections across Holmesdale CHN

Traffic displacement issues: The objections received through the getinvolved surveys are related to traffic displacements on 1) roads which exist within the healthy neighbourhood areas but not restricted, 2) roads which adjoins healthy neighbourhoods and 3) main roads as a direct result of the restrictions. Similarly, residents who attended the drop-in sessions raised concerns about the level of traffic displacement in the surrounding areas and main roads. They raised concerns about the perceived increase in pollutant concentrations—along main roads which have residential frontages, schools, retail frontages and high pedestrian activities.

The outcome of the traffic monitoring exercise has demonstrated the following:

- e) a decrease in through traffic across the healthy neighbourhood within the restricted roads.
- f) a decrease in traffic on main roads where we had previous data for comparison
- g) an increase in traffic in Dixon Rd which is unrestricted and lies within the HN area

It should be noted that the comparison of traffic movements was only possible where we had previous data as baseline and in some cases no data exist pre- introduction of the schemes. The data is also a comparison of the 7-day average for two-way movements. The decrease in traffic movements has created an improved environment for residents conducive to walking and cycling. The nature of the current scheme i.e, the lack of a comprehensive set of measures within the Holmesdale HN have created "through "routes for drivers who can still use such residential road. The displaced traffic in Dixon Rd which is an unrestricted route but lies within the HN has to be addressed in order to create a consistent approach to improving the quality of the HN and ensure the safety benefits are widespread. This can be an integral part of additional community engagement where the technical evidence can play a key part in a codesign process working collaboratively with those residents mostly affected and with those least affected.

Boundary roads: On boundary roads the technical assessments have indicated a decrease in traffic volume albeit small, we could only assessed main roads where we had previous data to compare. Traffic movements are dependent upon various factors which can impact on the operation of the main road network. Behavioural change can play a significant role in how the road network is used by car drivers and how traffic flow can fluctuate throughout the year. More importantly, we have not received any concerns from Transport for London Buses with

regard to delays on the main road network as a result of the HN measures in place, nor have we received any concerns from the emergency services about any specific part of the main road network in close proximity of any HN.

Traffic speed: The monitoring exercise has indicated a reduction in the 85% percentile speed within the Holmesdale healthy neighbourhood where we had previous data to use as a comparison, (this is the speed at which 85% of drivers considers this as a safe speed to travel under free flow condition). The **speed reduction** of 5 mph from 27mph equates to an 18% reduction. In general, it has been identified through research that a reduction of 1 mph can reduce road injury collision by 5-6%, more importantly the severity of injury collisions is less as speed is reduced to near or below 20 mph. Local highway authorities have a duty of care to improve road safety on the public highway. Section 39 of the Road Traffic Act 1988 imposes a statutory obligation on every Highway Authority to promote and improve road safety.

Road injury collisions (all severities) within HN: the monitoring exercise has made an assessment of road collisions in relation to the experimental scheme in place. The collision study was carried over a 28 month (not 36 months as normal practice dictates) before and 28 months after given the availability of data post implementation of the scheme.

Specific to Holmesdale CHN there has been a reduction from 10 to 2 injury collision, a reduction of 75%.

Road injury collisions (all severities) boundary roads: In contrast, there has been an increase in road injury collisions on boundary roads. In general, main roads have higher collision rates due to the high volume of traffic they carry and high level of exposure. In general, road collisions are multifactor events and is defined as "An accident is a rare, random, multifactor event always preceded by a situation in which one or more road users have failed to cope with the road environment" (Ref: Royal Society for the Prevention of Accidents "RoSPA" in brief). The high volume and traffic mix on main roads increase the exposure of road users; additionally poor driver behaviour can add to the increased risk of collision occurrence. In accordance with RoSPA 95% of all road injury collisions are attributable to poor drivers' behaviour. The council has a programme for reducing the severity of road collision integral to the Vision Zero programme funded by Transport for London.

Access issues: The Council has published information online which includes how the permit system works and eligibility for access. The information is very comprehensive and should assist residents in meeting some of their essential needs. The web site is very clear about the eligibility for permits and allows up to three permits per household. Residents can contact the council in advance if they have specific needs for travel arrangements from their home addresses. Access to emergency and other statutory service vehicles are retained. The web site information can be accessed via Exemption Permits | Croydon Council. The permit system includes the following

- Resident exemptions
- Temporary resident exemptions
- Carers Exemptions (up to 12 months as a regular carer)
- Blue Badge Exemptions
- Nursery and school staff exemptions

1.3 Theme 2: Impact on the environment due to increase in pollution etc 21 objections received, 21% of all objections

Officers view: The monitoring exercise has indicated a decrease in the level of pollutant concentration especially NO2 which is the dominant pollutants insofar as vehicular emissions are concerned. The level of pollutant concentration is well below the mean objectives for the UK. In general, the measures within the healthy neighbourhoods have contributed to an improved air quality. Some residents have commented on the benefits of perceived improved air quality as a direct result from lower volumes of traffic through their restricted streets.

1.4 Theme 3: Revenue raising scheme, 16 objections received, 20% of all objections

Officers View: The council is obliged to ring fence revenues from both parking enforcement and enforcement of traffic regulations for the purpose of maintaining the public highway in line with current legislation.

1.5 Theme 4:" Other" such as poor signage, poor communications from the council, no opportunity to participate etc, 6 objections received, 7% of all objections

Officers View: A few of the objections are related to poor communications about the entire healthy neighbourhood programme resulting in poor relationship between the council and residents. The manner in which these schemes were introduced has also raised objections given that residents felt they were no engagement and no opportunities to have they say. Additionally, a few residents felt that the current signage is confusing and can cause drivers to make u- turns just before the camera locations resulting in an increased risk to accidents. Signage for any highway schemes is designed in accordance with the Traffic Signs Regulations and General Directions 2016.

1.6 Community Engagements: Drop-in Sessions

Outcome of the Drop-in sessions held during February and March 2023

| CHN Areas | Wards | Venues | Dates | Times |
|--------------------------------------|---|---|--|-------|
| Dalmally Rd/ Ellmers/ Kemerton | Addiscombe East and Addiscombe West | Woodside Primary School Morland Rd CR06NF | Tuesday 8th Feb Wednesday 9th Feb | 5-8pm |
| Holmesdale Rd | South Norwood | Stanley Arts Café 12 South Norwood Hill, SW256AB | Wednesday 15th Feb Thursday 16th Feb | 5-8pm |
| Albert Rd | Woodside | St Marks Church Albert Rd, South Norwood, SE254JE | Monday 20 th Feb Wednesday 22nd Feb | 5-8pm |
| Parsons Mead/ Sutherland | Broad Green | Broad Green Library 89 Canterbury Rd CR03HA | Thursday 2 nd March Monday 6 th March | 5-8pm |

1.7 Summary of Findings from each CHN Drop-in session (key themes)

| CHN Drop-in session | What some attendees liked about it (key comments) | What other attendees disliked about it (key comments) |
|---|--|--|
| Albert Rd | Some residents think that the roads within the CHN now feel quieter, less polluted and safer, making it more pleasant for people to walk and cycle | There were concerns that the CHN had displaced traffic (and pollution) onto other roads The CHN is making it more difficult for some residents to travel around the area by car Some roads now have vehicles needing to turn around as they can't get through It is making it harder to park in some areas, Some residents were confused about the permits process. Signage was also highlighted as an issue Safety concerns |
| Damally Rd | Reduced level of through traffic, safer and quieter streets | Money making scheme, no engagement, objectives were never made clear and communicated |
| Elmers Rd | Reduced level of through traffic, safer and quieter streets | Should be removed. Increased fear of crime, not addressing speeding, encourage U turns, displaced traffic |
| Kemerton Rd | No through traffic | Should be removed. Bollards look ugly, difficulty in turning around due to closure, increase in anti-social behaviour and crime |
| Holmesdale Rd | Reduced level of through traffic, safer and quieter streets | Traffic displacement on main roads and other roads within CHN, not addressed speeding, objectives never communicated by council, money making scheme, perception in fear of crime increasing poses danger to women. |
| Broad Green (Surtherland Rd and Parsons Mead | Only two attendees stated they felt the area had improved | Displaced traffic onto Wentworth and Priory Roads, and on London Rd and Mitcham Rd, speeding issues and drivers frustrated at congested residential roads taking displaced traffic |

1.8 Community Engagements: Outcome of the Scientific Resident Polling

- 49% of all those who live within HN's were aware of HN in their area
- 58% were confident about their understanding of HN and the general idea that HN aimed at traffic reduction and improve the quality of their area was broadly understood.
- 6 out of 10 people surveyed were aware of the permit system
- Support for HN amongst those surveyed was around 58-61%
- There is 37% level of satisfaction within the Albert Rd CHN, lowest level within the cohort of CHN, in comparison with Holmesdale 39%, Dalmally (include Kemerton and Elmers Rd)50 %and Parsons Mead and Sutherland 53%
- Those who were surveyed acknowledged the improvement in the quality of their neighbourhood (road safety and more active travel) whilst also acknowledging the impact on bordering streets
- 1in 3 who was polled said that less traffic is the best thing about HN
- 1in 3 who was polled said it has encouraged more active travel
- Nearly half of those polled (48%) from boundary roads said diverting traffic on boundary roads was the main contention whilst 38% of those polled within HN said the same thing

- 7 in 10 residents in HN expressed the desire to be more involved "Local communities should be more involved in the planning and implementation of Healthy neighbourhoods"
- There is a perception that the narrative about camera enforcement was not clear, and people felt this was a finance driven scheme
- 21% of all those within the HN areas said they were "very likely" to commit to engaging with the council, whilst 45% said they were "quite likely" committed.

Quantitative Assessments and outcome

- 1.9 General status of roads within experimental Healthy Neighbourhoods: At the time of their introduction a few roads which were considered "through routes" were closed to traffic by planters and later changed to restricted access measures. Not all roads within the healthy neighbourhoods have access restrictions and a few roads situated just outside of the HN boundaries were excluded. The unrestricted roads within the HN's are used by through traffic wishing to gain access to main roads, causing displacement in these roads. Similarly, roads just outside of HN's have suffered from traffic displacement as a result of the HN restrictions. The traffic monitoring exercise which was carried out has identified the level of displaced traffic in these roads and considerations to be given to any adjustments to ensure a coherent set of measures to maximise road safety benefits and further improvements to the quality of the urban space.
- 1.10 Summary of traffic survey methodology: The adopted methodology relies on the analysis of before and after-intervention data from a number of different sources, captured from survey locations across the study area. As such, analysis has been limited to locations where both before and after data is available and change can be established. For analysis, the baseline data is taken from historic surveys taken between 2017 and 2019, used to inform various schemes and commissions from LBC and TfL. The Automatic Traffic Counts largely cover internal, neighbourhood roads sites. For boundary roads, baseline data has largely been taken from DfT permanent road traffic counters. It should be noted that these counters do not record speed and there is therefore an absence in 'before' speed data for many boundary road sites.
- 1.11 **Cycle and Pedestrian Counts:** Numerous permanent Vivacity data sensors were introduced across the project area after the introduction of the Healthy Neighbourhoods. This data has been used to understand trends in pedal cycle and pedestrian flows since installation. Whilst there is no 'before and after' data, information on flows has been obtained for a 12-month period post-introduction of the HNs. The analysis was conducted to assess changes in cycle and pedestrian volumes from March 2022 to March 2023
- 1.12 General Traffic trends: There is evidence to suggest that the borough may have experienced a sustained modal shift following the COVID-19 pandemic. Data collected from DfT counter sites across the borough (largely on principal or major roads) shows an increase in cycles and a decrease in vehicles from 2019 to 2022. Cycle flows were 11735, equivalent to a 29% increase on 2019 counts. The table below shows the trends in mode types from 2019-22.

| Mode Type | 2019 | 2022 | % increase or decrease |
|--------------|--------|---------|------------------------|
| Cycles | 9119 | 11735 | +29% |
| P2W | 24534 | 32055 | +31% |
| | 112038 | | |
| Cars | 5 | 1031463 | -8% |
| Buses | 27033 | 26128 | -3% |
| LGV | 206434 | 220557 | +7% |
| HGV | 35285 | 41253 | +17% |

1.13 **Journey times evaluation:** Traffic data pertaining to journey times is usually supplied by The Floow. They collect raw traffic data using telematics technology from mobility sensors, tracking journeys made by car. The time taken to get between locations can then be compared for different dates of reference. The data comes from app data of drivers on specific insurance policies which request vehicle tracking. The data is provided as an anonymous, 'big data' dataset. It reports on various metrics relevant to car insurers such as speed, smoothness and distraction. The travel times are estimated using GPS data with locational measures given a temporal match. Errors in either of these measures, however, would affect the reliability of the journey times calculated. Large organisations such as the DfT complete a process of data validation when using telematics data as a means of quality assurance. Therefore, given the gaps in the data set and potential anomalies it was considered not practicable to report on journey times given the inconsistencies. Furthermore, journey times can also be provided by Transport for London through their "ibus" data, unfortunately they only keep data for two years at a time. Again, not possible to retrieve data over the study period.

In general journey times on the main road network are affected on a daily basis given the nature of traffic mix, volume fluctuations and potential occurrence of incidents at a particular location which can impact on roads on a wider basis.

1.14 Traffic and Road Safety Analyses (CHN Albert, Dalmally and Elmers)

| | Summary of monitoring data from Experimental CHN as compared with Baseline Data | | | CHN Elmers Rd and |
|-----|---|---|--|--|
| Ref | | CHN Albert Rd | CHN Dalmally Rd | CHN Kemerton Rd |
| | Access Restricted Roads within CHN | Albert Rd / Eldon Rd,Albert Rd / Harrington Rd, Apsely Rd/ Albert Rd and Belfast Rd /Albert Rd | | Elmers Rd |
| | | | | |
| | Monitoring Themes | | | |
| | Traffic Movements over 24 hrs for 7 days two way | | | |
| 1a | restricted roads and / or within | Decrease from 1271 vehs to 1121 vehs in Harrington Rd , | Decrease from 4150 to 3465 vehs across roads within restricted cell | Ave Decrease from 1346 to 995 vehs across restricted roads |
| 1b | Traffic movements in unrestricted roads within CHN | Increase from 1285 to 1545 vehs in Eldon Park | As above | NA |
| | residential roads just outside | Decrease from 6890 to 5660 vehs in all roads outside of chn restrictions | N/A | Ave Decrease from 1097 to 839 vehs in roads just outside of restricted area |
| | | | | |
| 2 | Boundary Roads | | | |
| 1 | Traffic movements along boundary roads | Decrease from 13068 to 12073 vehs along Portland Rd | Increase from 6225 vehs to 9354 vehs along Morland Rd , Lower addiscombe Rd | Increase from 6225 vehs to 9354 vehs along Morland Rd , Lower addiscombe Rd |

| | | Increase from 19101 to | | |
|----|---|---|---|---|
| | | 20211 vehs along Penge | | |
| | | Rd | | |
| | | | | |
| 3 | Road Safety | | | |
| 3a | | | Ave Decrease of | Ave Decrease in |
| | | 85%ile speed from 23 mph | • | 85%ile speed from |
| | | to 18mph in restricted streets | 27mph to 22 mph across restricted cell | 27mph to 23 mph in restricted cell |
| 2h | | | | average 85ile% speed |
| | | | below 30mph | below 30mph |
| | Road Collisions within CHN cell | <u> </u> | 1 (slight) | 1 (slight) |
| 1 | 28 months to April 2020 | (0.19.1.) | , (Siight) | (Siig.it/ |
| | Road Collisions within CHN cell | 3(slight) | 3 (2 serious + 1 slight) | 1 (slight) |
| | 28 months to 2022 | | , | |
| | change based on collisions on | 1 (slight) | 3 (2 serious + 1 slight) | 0 |
| | ave per year over 27 months | | | |
| | Road Collisions on Boundary | 137 | 40 | 22 |
| | Roads 28 months to April 2020 | 404 | 50 | 40 |
| _ | Road collision on Boundary Roads 27 months to 2022 | 161 | | 40 |
| | 5 | 24 | 12 | 18 |
| | per year on ave over 27 months | | | |
| | monus | | | |
| 4 | | | | |
| | Traffic Mix within CHN cell | | | |
| 4a | , , | Negligible change | | Negligible change |
| | Sensors | between March 2022 to March 2023, as smart | between March 2022 to March 2023, as smart | between March 2022 to March 2023, as |
| | | sensors were introduced | sensors were | smart sensors were |
| | | post CHN | | introduced post CHN |
| 4b | | Negligible change | , , , , | Negligible change |
| | | between March 2022 to | between March 2022 to | |
| | | | | to March 2023, as |
| | | sensors were introduced post CHN | sensors were introduced post CHN | smart sensors were introduced post CHN |
| | | post of fix | muoduoed post of m | madadea post or in |
| | | | | |
| | Key | | | |
| | | | | |
| | Decrease | | Increase | |

1.15 Traffic and Road Safety Analyses (CHN Holmesdale, Parsons Mead and Sutherland)

| | Summary of monitoring data from Experimental CHN as compared with Baseline Data | | | |
|-----|--|---|--|---|
| Ref | | CHN Holmesdale | CHN Parsons Mead | CHN Sutherland |
| | Access Restricted Roads within CHN | Holmesdale and Elm Park Rd | Parsons Mead and Derby Rd | Sutherland Rd |
| | Manitaring Thomas | | | |
| 1 | Monitoring Themes Traffic Movements comparing 7 day ave two way movements May 2019 vs May 2023 | | | |
| | Traffic Movements in access restricted roads and / or within close proximity of restrictions | | Decrease of 3287 vehs from 6656 to 3369 vehs in Derby Road | Decrease of 79 vehs from 311 to 232 vehs in Lambeth Rd |
| | | | | Increase of 21 vehs from 895 to 916 vehs in Fairholme Rd, increase of 121 vehs from 677 to 798 vehs in Pemdevon Rd |
| | | Increase in Dixon Rd from 810 vehs to 1198 vehs | NA | NA |
| | Traffic movements on residential roads just outside of CHN | N/A | NA | Increase of 278 vehs from 930 to 1208 vehs in Priority Road, increase of 972 vehs from 962 to 1934 vehs in Wentworth Rd |
| | | | | |
| 2 | Boundary Roads | | | |
| 1 | Traffic movements along boundary roads | Rd, Decrease along South Norwood Hill, Decrease along South Norwood Hill | from 30095 to 15575 vehs) along London Rd, and decrease of 11531 (from 25197 to 13666 vehs) along Sumner Rd. | |
| | | | Increase of 6298 vehs from 26544 to 32842 vehs along Roman Way | Increase of 414 vehs from 20229 to 20643 vehs in Mitcham Rd |
| | | | | |

| 3 | | Road Safety | | | |
|------------|-----|---|-----------------------------------|---|---|
| | | 85%ile speed within cell | Decrease of 5 mph | Decrease of 1.6 mph from | Decrease of 2 mph |
| | Ju | oo maani een | from 27 mph to | 18.8 to 17.2 mph 85%ile speed in Derby Rd, Decrease of 1.7 mph in Lambeth Rd to 14.1 mph | in Fairholme and Pemdevon to 18 mph |
| | | 85%ile speed on boundary roads | 85%ile speed is below 30mph limit | 85%ile speed below 30mph limit | 85%ile speed below 30mph limit |
| | | Road Collisions within CHN cell 28 months to April 2020 | 10 (2 serious + 8 slight) | 6 (5 slight + 1 serious) | 3 (slight) |
| | | Road Collisions within CHN cell 28 months to 2022 | 2 (serious) | 6(5 slight +1 serious) | 7 (slight) |
| | | on ave per year over 27 months | 8 (slight) | 0 | 4(slight) |
| | | Road Collisions on Boundary Roads 28 months to April 2020 | | 73 | 80 |
| | | Road collision on Boundary Roads 27 months to 2022 | 64 | 101 | 110 |
| 3h | | change based on collisions per year on ave over 27 months | 11 | 28 | 30 |
| | | | | | |
| 4 | | Traffic Mix within CHN cell | | | |
| | | Cycling trends using Smart Sensors | | Negligible change between March 2022 to March 2023, as smart sensors were introduced post CHN | Negligible change between March 2022 to March 2023, as smart sensors were introduced post CHN |
| | | Pedestrian trends using Smart Sensors | | Negligible change between March 2022 to March 2023, as smart sensors were introduced post CHN | Negligible change between March 2022 to March 2023, as smart sensors were introduced post CHN |
| | | | | | |
| Key | | | | | |
| Decr se | rea | | Increase | | |

1.16 **Air Quality Assessment**: In general, the main pollutant of concern in Croydon is NO2 and road transport is the main source of NO2 and particulate matter. The average mean objectives for NO2, PM10 and PM2.5 are listed below:

| Pollutants | Average Mean Objectives for UK (microgram is a unit of mass equal to one |
|------------|--|
| | millionth of a gram) |

| NO2 | 40 microgram /m3 |
|-------|------------------|
| PM10 | 40 microgram /m3 |
| PM2.5 | 20 microgram /m3 |

1.17 The traffic control measures implemented as part of the Healthy Neighbourhoods' scheme have the potential to result in air quality impacts from changes in traffic emissions associated with the measures, due to rerouting of traffic near the measures and on the wider road network. Therefore, an air quality assessment¹ was undertaken to determine the potential air quality impacts of the Health Neighbourhoods. To determine the impacts, air quality concentrations were predicted at selected receptors (e.g., residential properties, schools or hospitals) located within each of the Healthy Neighbourhoods and surrounding roads using an air quality model. Traffic data was provided for 2019, before the measures were in place, and for 2022, with the measures in place. To determine the effects of the measures alone, rather than changes to background air quality, changes in vehicle emissions, and traffic growth between 2019 and 2022, the 2019 traffic data was factored to 2022 to enable a fairer comparison of the with and without measures scenarios. Monitoring data was used to verify the model outputs by comparing the annual mean 2022 monitored and modelled concentrations and adjusting the model outputs to account for discrepancies between the monitored and modelled concentrations. The results presented in the table show the receptors within each Healthy Neighbourhood that are predicted to have the largest improvement and largest worsening in NO₂ concentrations resulting from the Healthy Neighbourhood measures. It should be noted that the largest concentrations and changes in concentrations were for NO₂, and changes in PM₁₀ and PM_{2.5} were determined as being negligible in accordance with best practice guidance significance criteria

Conclusion:

1.18 As indicated in the table below, it can be concluded that the measures may have resulted in an overall improvement in air quality across most of the Healthy Neighbourhoods, with some receptors seeing a moderate beneficial decrease in NO2 concentrations. Some receptors were predicted to experience an increase in pollutants as a result of the Healthy Neighbourhoods, which is likely to be due to rerouted traffic on adjacent roads. However, in terms of significance, these increases were negligible in accordance with best practice guidance significance criteria. Pollutant concentrations at all assessed receptors within the Healthy Neighbourhoods and surrounding areas were predicted to be below the Air Quality Strategy objectives for NO2, PM10 and PM2.5. In addition, there is an overall reduction in emissions of NOx, PM10, PM2.5 and CO2 as a result of the Healthy Neighbourhood measures.

1.19 Table showing results of assessments

Modelling Results for the Receptors with the Largest Improvement and Worsening in each Healthy Neighbourhood

| | | Annual Me | Annual Mean NO ₂ Concentration (μg/m³) | | | | |
|----------|--|-------------------------|---|--------|---|--|--|
| Receptor | Location | 2022 (without measures) | 2022 (with measures) | Change | Best Practice Guidance Significance Criteria | | |
| | Holmesdale Road Healthy Neighbourhood* | | | | | | |
| HR9 | South Norwood Hill | 28.3 | 25.1 | -3.2 | Slight Beneficial | | |
| | Elmers Road Healthy Neighbourhood* | | | | | | |
| ER6 | Lower Addiscombe Road | 27.9 | 26.5 | -1.4 | Negligible | | |

| | Dalmally Road Healthy Neighbourhood | | | | | | |
|-------|-------------------------------------|--------------------|---------------------|------|---------------------|--|--|
| DR8 | Lower Addiscombe Road | 30.7 | 24.4 | -6.3 | Moderate Beneficial | | |
| KR9** | Morland Road | 22.6 | 22.7 | 0.1 | Negligible | | |
| | | Kemerton Road Hea | althy Neighbourhood | I | | | |
| KR13 | Lower Addiscombe Road | 34.0 | 31.0 | -3.0 | Moderate Beneficial | | |
| AR9** | Portland Road | 22.6 | 24.5 | 1.9 | Negligible | | |
| | | Parsons Mead Hea | lthy Neighbourhood | | | | |
| SR1** | Sumner Road | 33.9 | 28.0 | -5.9 | Moderate Beneficial | | |
| PM3 | Roman Way | 24.9 | 25.8 | 0.9 | Negligible | | |
| | | Sutherland Road He | althy Neighbourhoo | d | | | |
| SR1 | Sumner Road | 33.9 | 28.0 | -5.9 | Moderate Beneficial | | |
| SR6 | Wentworth Road | 22.2 | 22.4 | 0.2 | Negligible | | |
| | Albert Road Healthy Neighbourhood | | | | | | |
| AR13 | Elmers End Road | 31.0 | 27.3 | -3.7 | Moderate Beneficial | | |
| AR9 | Portland Road | 22.6 | 24.5 | 1.9 | Negligible | | |

^{*} At the Holmesdale Road and Elmers Road Healthy Neighbourhoods, none of the selected receptors were predicted to experience worsening in air quality as a result of the Healthy Neighbourhood measures.

^{**} This receptor has an ID associated with a different Healthy Neighbourhood but represents a receptor affected by more than one Healthy Neighbourhood.

| negligible |
|---------------------|
| slightly beneficial |
| moderate beneficial |

Emission Impacts

1.20 Total emissions of NOx, PM10, PM2.5 and CO2 have been calculated for the 2022 growth-factored (without the measures) and 2022 (with the measures) scenarios. The emissions have been calculated using the entire traffic datasets provided, and therefore take into consideration the impact of all Healthy Neighbourhoods combined. The total emissions are presented in the table below:

Pollutant Emissions Across the Study Area

| | Total NOx Emissions (tonnes/year) | Total PM ₁₀ Emissions (tonnes/year) | Total PM _{2.5} Emissions (tonnes/year) | Total Direct CO ₂ Emissions* (tonnes/year) | Total Indirect CO ₂ e Emissions** (tonnes/year) |
|--|---|--|---|---|--|
| 2022 growth- factored (without measures) | 62.8 | 10.6 | 5.6 | 51,261.6 | 395.3 |
| 2022 (with measures) | 48.3 | 8.4 | 4.4 | 40,819.1 | 295.2 |
| Change in emissions | -14.5 | -2.2 | -1.2 | -10,442.5 | -100.1 |

^{*}Direct CO₂ includes emissions from the vehicle tailpipe.

The results indicate that there is predicted to be a decrease in emissions across the study area for all pollutants with the Healthy Neighbourhoods in place. CO2 does not have a direct impact on human health, however, it is a greenhouse gas and therefore the total change in emissions for this pollutant has also been considered. The CO2 emissions are split into direct emissions, which include emissions directly from the vehicle, and indirect CO2e emissions, which are the emissions associated with electric vehicle charging. Overall, there is predicted to be a decrease in total emissions of all pollutants across the study area, with the Healthy Neighbourhood measures in place.

^{**} Indirect CO_2e (CO_2 equivalent) emissions are associated with the charging of the batteries of electric and plug-in hybrid



Equality Analysis Form

1. Introduction

1.1 Purpose of Equality Analysis

The council has an important role in creating a fair society through the services we provide, the people we employ and the money we spend. Equality is integral to everything the council does. We are committed to making Croydon a stronger, fairer borough where no community or individual is held back.

Undertaking an Equality Analysis helps to determine whether a proposed change will have a positive, negative, or no impact on groups that share a protected characteristic. Conclusions drawn from Equality Analyses helps us to better understand the needs of all our communities, enable us to target services and budgets more effectively and also helps us to comply with the Equality Act 2010.

An equality analysis must be completed as early as possible during the planning stages of any proposed change to ensure information gained from the process is incorporated in any decisions made.

In practice, the term 'proposed change' broadly covers the following:-

- Policies, strategies and plans;
- Projects and programmes;
- Commissioning (including re-commissioning and de-commissioning);
- Service review:
- Budget allocation/analysis;
- Staff restructures (including outsourcing);
- Business transformation programmes;
- Organisational change programmes;
- Processes (for example thresholds, eligibility, entitlements, and access criteria.

2. Proposed change

| Directorate | Sustainable Communities, Regeneration & Economic Recovery Directorate | | |
|--|---|--|--|
| Title of proposed change | Croydon Experimental Healthy Neighbourhoods | | |
| Name of Officer carrying out Equality Analysis | Abu Barkatoolah | | |

age 5

2.1 Purpose of proposed change (see 1.1 above for examples of proposed changes)

The council previously introduced low traffic neighbourhoods using planters to effect road closures integral to a specific directive from central government during the covid period. It was aimed at maximising opportunities to promote active travel, using the decreasing trend of motorised traffic during Covid. These planters were later removed and measures to restrict access to residents and their visitors were later introduced to ensure those who live within these areas could access their residential streets without the need to drive longer routes to do so. These measures were introduced using Experimental Powers, section 9 of the Road Traffic Regulation Act 1984 and came into force on 30th September 2022. The previously named low traffic neighbourhood became Croydon experimental healthy neighbourhoods with a view to monitor their impact over the course of the experimental stages and report to cabinet on the outcome.

The Council has published information online which includes how the permit system works and eligibility for access. The information is very comprehensive and should assist residents in meeting some of their essential needs. The web site is very clear about the eligibility for permits and allows up to three permits per household. Residents can contact the council in advance if they have specific needs for travel arrangements from their home addresses. Access to emergency and other statutory service vehicles are retained. The web site information can be accessed via

Exemption Permits | Croydon Council. The permit system includes the following

- Resident exemptions
- Temporary resident exemptions
- Carers Exemptions (up to 12 months as a regular carer)
- Blue Badge Exemptions
- Nursery and school staff exemptions

Community engagement activities were carried out during February and March 2023 seeking views of those who live within the healthy neighbourhood areas and also those who live on the boundary roads. A monitoring exercise was undertaken during spring to summer of 2023 to assess the impact of the restricted access measures, the quantitative assessments included changes in : traffic volumes, road collisions, air quality, the qualitative assessments included polling surveys to assess attitudinal changes.

The proposed change 1): the council is proposing to make six of the healthy neighbourhoods permanent as a result of some of the key benefits identified through the monitoring exercise and engagements. Reducing traffic volumes in residential roads can improve the quality of life through a reduction in traffic noise, pollution, road collisions and perception of road danger. It is also aimed at promoting active travel i.e walking and cycling. High volume of traffic can be intimidating to vulnerable road users especially the elderly who may not feel safe, and this can cause social exclusion which can have an impact of their physical and mental well being. Making the experimental healthy neighbourhoods permanent will be highly beneficial for all residents irrespective of age, gender, race etc. It is also beneficial in terms of encouraging parents

and children to walk to school which can have a positive outcome on the health and well being of the school community. The permit system will remain in place to service the needs of residents and their visitors.

3. Impact of the proposed change

Important Note: It is necessary to determine how each of the protected groups could be impacted by the proposed change. Summarise any positive impacts or benefits, any negative impacts and any neutral impacts and the evidence you have taken into account to reach this conclusion. Be aware that there may be positive, negative and neutral impacts within each characteristic.

Where an impact is unknown, state so. If there is insufficient information or evidence to reach a decision you will need to gather appropriate quantitative and qualitative information from a range of sources e.g. Croydon Observatory a useful source of information such as Borough Strategies and Plans, Borough and Ward Profiles, Joint Strategic Health Needs Assessments http://www.croydonobservatory.org/ Other sources include performance monitoring reports, complaints, survey data, audit reports, inspection reports, national research and feedback gained through engagement with service users, voluntary and community organisations and contractors.

3.1 Deciding whether the potential impact is positive or negative

Healthy neighbourhoods are aimed at 1)reducing the impact high volumes of traffic within residential roads can have on the quality of life, and 2) promote active travel and increase social inclusion. This is important as in Croydon, we have a growing issue with obesity in the population, including children. Croydon has the fourth largest proportion of young people in London, with one in four Croydon residents (24.5%) aged between 0-17 years*.

Air pollution is an important public health issue contributing to illness and shortened life expectancy, that disproportionately impacts on the most vulnerable in the population, in particular the sick, young and elderly.

The 2011 Census figures showed that 14.1% of the population in Croydon had their day-to-day activities limited to some extent by a long-term health problem or disability.

- * Source: Croydon Observatory www.croydonobservatory.org
- + Source: Patterns and trends in child obesity in Croydon; A presentation of 2019/20 NCMP data at local authority level, July 2021

Table 1 - Positive/Negative impact

For each protected characteristic group show whether the impact of the proposed change on service users and/or staff is positive or negative by briefly outlining the nature of the impact in the appropriate column. If it is decided that analysis is not relevant to some groups, this should be recorded and explained. In all circumstances you should list the source of the evidence used to make this judgement where possible.

| Protected characteristic group(s) | Positive impact | Negative impact | Source of evidence |
|-----------------------------------|--|-----------------|---|
| Age | The healthy neighbourhood schemes (those streets which are restricted) in place provide quieter and safer streets for residents of all ages. A reduction in traffic volume within the restricted streets creates safer streets through a reduction in perceived road danger. The byproduct of reduced traffic volume is improved air quality. Elderly residents will benefit from less traffic and a reduction in road danger as they can be encouraged to be more active through walking and increase their social activities, be more inclusive and improve their well being. Thus creating cohesive communities which in turn result in resilient communities | 1 - | Air quality action plan 2017 – 2022. Population change (%) by age group in Croydon 2011-2021 This is how Croydon compares. There has been an increase of 19.7% in people aged 65 years and over, an increase of 7.0% in people aged 15 to 64 years, and an increase of 1.9% in children aged under 15 years. Air quality action plan 2017 – 2022. Population change (%) by age group in Croydon 2011-2021 Fall |

Parents will be more encouraged to walk their children to school and increase their level of physical activities as quieter streets provide a better environment.

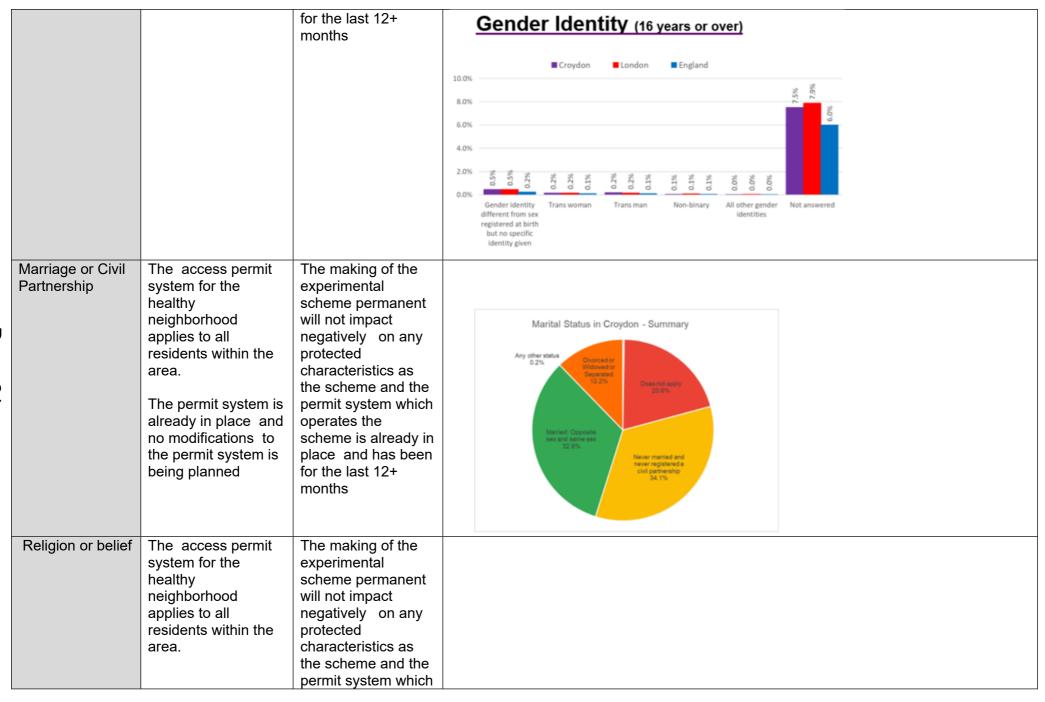
with these residents to make any adjustments as appropriate to ensure they are not impacted by displaced traffic and their quality of life is improved.

Public Health (NHS) data shows that Croydon currently have the highest rate of hospital admissions for childhood (0-9 years) asthma in London. 7.5% of premature deaths in Croydon are linked to air pollution. Failing to address NOx and particulate matter emissions in Croydon would deprive many local people of their fundamental right to safe air. Public Health data shows one in four Croydon residents (24.5%) aged between 0-17 years. It is known that around 1 in 5 children (21.8%) in reception were

overweight or living

| | with obesity, and this position worsens in their last year of primary school (Year 6) where around 2 in 5 children (39.5%) were overweight or living with obesity. | | |
|------------|---|--|---|
| Disability | residents including those who have mobility impairment. The permit system also allows for carers to be able to serve the needs of the elderly and in some cases regular carers | The making of the experimental scheme permanent will not impact negatively on any protected characteristics as the scheme and the permit system which operates the scheme is already in place and has been | Air quality action plan 2017 – 2022 Blue Badge Scheme Croydon Observatory Disabled Parking Accreditation Scheme in association with Disabled Motoring UK. Disability |
| | duration for 12 | for the last 12+ | Croydon - Disability |
| | months. The permit system is already in place and no modifications to the permit system is being planned Reducing road danger also has the potential to enable more people to participate in active travel who may previously have been discouraged to so perhaps because of their disability. For example, those elderly residents who | months | 350,000 250,000 150,000 50,000 Not disabled under the Equality Act: The Equality Act: No long term physical or mental health conditions Disabled under the Equality Act: Day-to-day activities are not limited a little limited a lot conditions Not disabled under the Equality Act: No long term physical or mental health conditions |

| | require assistance for walking due to their disability may be encouraged to walk more and able to cross the road without being fearful of speeding and high volume of traffic. | | | | |
|------------------------|--|--|---------------------|---|--|
| Sex | See above, additionally more women may be encouraged to cycle more given the restricted streets are quieter and road danger reduced. The permit system is already in place and no modifications to the permit system is being planned | The making of the experimental scheme permanent will not impact negatively on any protected characteristics as the scheme and the permit system which operates the scheme is already in place and has been for the last 12+ months | 100% 80% 40% 20% 0% | on plan 2017 – 2022 Female 48.1% 51.9% | |
| Gender Reassignment | The access permit system for the healthy neighborhood applies to all residents within the area. | The making of the experimental scheme permanent will not impact negatively on any protected characteristics as the scheme and the permit system which operates the scheme is already in place and has been | Air quality action | on plan 2017 – 2022 | |



| | | The permit system is already in place and no modifications to the permit system is being planned | operates the scheme is already in place and has been for the last 12+ months | Religions in Croydon compared to London and England Census Census 2021 2011 Change 2021 2021 2021 Change 2021 2021 2021 Change 2021 2021 2021 Change 2021 2021 2021 2021 Change 2021 2021 2021 2021 2021 2021 2021 202 |
|---------|------|--|--|--|
| Dogo 63 | Race | See above impact for All categories Additionally, the proposed change can have the potential to increase participation among under-represented groups to cycle and in so doing improve their health and well being especially in areas of higher deprivation. The schemes may help to create an environment helping to increase the proportion of racialised groups who choose to cycle. The permit system is already in place and no modifications to | The making of the experimental scheme permanent will not impact negatively on any protected characteristics as the scheme and the permit system which operates the scheme is already in place and has been for the last 12+ months | Broad Ethnic Groups — Croydon vs London vs England Croydon London England - Less than half of the Croydon population is made up of residents from the White communities. The proportion of people from the Black and Mixed communities in Croydon is greater than in London and England. There is a much higher proportion of people from the White communities at the national level than in London and Croydon. |

| | the permit system is being planned | | | |
|------------------------|---|---|--|---|
| Sexual Orientation | The healthy neighbourhood is already in place experimentally and making it permanent will be positive on all protected characteristics | The making of the experimental scheme permanent will not impact negatively on any protected characteristics as the scheme and the permit system which operates the scheme is already in place and has been for the last 12+ months | Sexual Orientation (16 year or over) Croydon London England Croydon London England Croydon London England Straight or Gay or Lesbian Bisexual Pansexual Asexual Queer All other sexual Not answered orientations | According to Census 2021 data, just under 9 in every 10 people are straight or heterosexual in Croydon, London and England. Just under 1 in 10 did not answer the sexual orientation question in Croydon (9.1%) and London (9.5%). In England generally, 7.5% did not answer the question. Of those who answered the question, the LGBT+ community amounted to 3.1% in Croydon, 4.3% in London and 3.2% in England. |
| Pregnancy or Maternity | The aim is to improve air quality and reduce exposure to air pollution and reduce the damaging impact that air pollution has on public health and public health challenges for all residents. A reduction in road danger can assist those who are pregnant and on maternity to be encouraged to walk more and feel less intimidated by traffic. | The making of the experimental scheme permanent will not impact negatively on any protected characteristics as the scheme and the permit system which operates the scheme is already in place and has been for the last 12+ months. The permit system allows for visitors and special arrangements | | |

including medical assistance

Important note: You must act to eliminate any potential negative impact which, if it occurred would breach the Equality Act 2010. In some situations this could mean abandoning your proposed change as you may not be able to take action to mitigate all negative impacts.

When you act to reduce any negative impact or maximise any positive impact, you must ensure that this does not create a negative impact on service users and/or staff belonging to groups that share protected characteristics. Please use table 4 to record actions that will be taken to remove or minimise any potential negative impact

3.2 Additional information needed to determine impact of proposed change

Table 2 – Additional information needed to determine impact of proposed change

If you need to undertake further research and data gathering to help determine the likely impact of the proposed change, outline the information needed in this table. Please use the table below to describe any consultation with stakeholders and summarise how it has influenced the proposed change. Please attach evidence or provide link to appropriate data or reports:

| Additional information needed and or Consultation Findings | Information source | Date for completion |
|--|-----------------------------|---------------------|
| Additional information will be required in the form of additional engagements on any | Community engagement events | 2024/25 |
| adjustments within the healthy neighbourhood areas | | |

For guidance and support with consultation and engagement visit https://intranet.croydon.gov.uk/working-croydon/communications/consultation-and-engagement/starting-engagement-or-consultation

3.3 Impact scores

Example

If we are going to reduce parking provision in a particular location, officers will need to assess the equality impact as follows;

- 1. Determine the Likelihood of impact. You can do this by using the key in table 5 as a guide, for the purpose of this example, the likelihood of impact score is 2 (likely to impact)
- 2. Determine the Severity of impact. You can do this by using the key in table 5 as a guide, for the purpose of this example, the Severity of impact score is also 2 (likely to impact)
- 3. Calculate the equality impact score using table 4 below and the formula **Likelihood x Severity** and record it in table 5, for the purpose of this example **Likelihood** (2) x **Severity** (2) = 4

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Table 4 – Equality Impact Score

| | | | | 1 |
|--------------------|-----|---------|-----------|-----|
| act | 3 | 3 | 6 | 9 |
| lmp | 2 | 2 | 4 | 6 |
| / of | 1 | 1 | 2 | 3 |
| Severity of Impact | | 1 | 2 | 3 |
| Sev | Lik | elihood | l of Impa | act |

| Key | |
|------------|----------------|
| Risk Index | Risk Magnitude |
| 6 – 9 | High |
| 3 – 5 | Medium |
| 1 – 3 | Low |

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Equality Analysis

Table 3 - Impact scores

| Table 3 – Impact scores | Column 2 | Column 2 | Column 4 |
|------------------------------|--|---|--|
| Column 1 | Column 2 | Column 3 | Column 4 |
| PROTECTED GROUP | LIKELIHOOD OF IMPACT SCORE | SEVERITY OF IMPACT SCORE | EQUALITY IMPACT SCORE |
| | Use the key below to score the likelihood of the proposed change impacting each of the protected groups, by inserting either 1, 2, or 3 against each protected group. 1 = Unlikely to impact 2 = Likely to impact 3 = Certain to impact | Use the key below to score the severity of impact of the proposed change on each of the protected groups, by inserting either 1, 2, or 3 against each protected group. 1 = Unlikely to impact 2 = Likely to impact 3 = Certain to impact | Calculate the equality impact score for each protected group by multiplying scores in column 2 by scores in column 3. Enter the results below against each protected group. Equality impact score = likelihood of impact score x severity of impact score. |
| A | 4 | | |
| Age | 1 | 1 | 1 |
| Disability | 1 | 1 | 1 |
| Sex | 1 | 1 | 1 |
| Gender reassignment | 1 | 1 | 1 |
| Marriage / Civil Partnership | 1 | 1 | 1 |
| Religion or belief | 1 | 1 | 1 |
| Race | 1 | 1 | 1 |
| Sexual Orientation | 1 | 1 | 1 |
| Pregnancy or Maternity | 2 | 1 | 2 |

Equality Analysis

| 4. | Statu | ıtorv | duties |
|----|--------|-------|--------|
| | - tutt | | adtioo |

4.1 Public Sector Duties

| Equality Act 2010 Set out below. | |
|---|--|
| Advancing equality of opportunity between people who belong to protected groups Eliminating unlawful discrimination, harassment and victimisation | х |
| Fostering good relations between people who belong to protected characteristic groups | |
| Important note: If the proposed change adversely impacts the Council's ability to meet any of | the Public Sector Duties set out above mitigating actions must |

Tick the relevant box(es) to indicate whether the proposed change will adversely impact the Council's ability to meet any of the Public Sector Duties in the

Important note: If the proposed change adversely impacts the Council's ability to meet any of the Public Sector Duties set out above, mitigating actions mus be outlined in the Action Plan in section 5 below.

5. Action Plan to mitigate negative impacts of proposed change

Important note: Describe what alternatives have been considered and/or what actions will be taken to remove or minimise any potential negative impact identified above (table 1). Attach evidence or provide link to appropriate data, reports, etc.):

Table 4 – Action Plan to mitigate negative impacts

| Complete this table to show any negative impacts identified for service users and/or staff from protected groups, and planned actions mitigate them. | | | | |
|--|-----------------------------------|--------------------------------------|-----------------|---------------------|
| Protected characteristic | Negative impact | Mitigating action(s) | Action owner | Date for completion |
| Age | Displaced traffic in unrestricted | Carry out engagement activities with | Abu Barkatoolah | 2024/25 |
| | roads within healthy | those residents who olive in | | |
| | neighbourhoods | unrestricted roads within healthy | | |
| | | neighborhoods | | |
| | | | | |
| Disability | none | | | |
| | | | | |

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Equality Analysis

| Sex | none | | | |
|----------------------------|-------------------------|-----------------------------------|-------------------|--|
| Gender reassignment | none | | | |
| Marriage/civil partnership | | | | |
| Religion or belief | none | | | |
| Race | none | | | |
| Sexual orientation | none | | | |
| Pregnancy or maternity | Not being able to drive | Existing permit system allows for | Highways and | |
| | | visitors and special arrangement | Parking Services | |
| | | can be made for medical | who administers | |
| | | assistance other than ambulance | the permit system | |
| | | services. | | |
| | | | | |

6. Decision on the proposed change

| Decision | Definition | Conclusion - Mark 'X' below |
|----------------------------|---|-----------------------------------|
| No major change | Our analysis demonstrates that the policy is robust. The evidence shows no potential for discrimination and we have taken all opportunities to advance equality and foster good relations, subject to continuing monitoring and review. | x |
| Adjust the proposed change | We will take steps to lessen the impact of the proposed change should it adversely impact the Council's ability to meet any of the Public Sector Duties set out under section 4 above, remove barriers or better promote equality. We are going to take action to ensure these opportunities are realised. If you reach this conclusion, you must outline the actions you will take in Action Plan in section 5 of the Equality Analysis form; Making the experimental healthy neighbourhoods permanent will require adjustments to ensure unrestricted roads within the healthy neighbourhoods are treated in a similar manner to reduce the impact due to displaced traffic and consequently improve quality of life for those residents, this to be carried out through community engagement events. | x |

Equality Analysis

| Continue the proposed change | We will adopt or continue with the change, despite potential for adverse impact or opportunities to lessen the impact of discrimination, harassment or victimisation and better advance equality and foster good relations between groups through the change. However, we are not planning to implement them as we are satisfied that our project will not lead to unlawful discrimination and there are justifiable reasons to continue as planned. If you reach this conclusion, you should clearly set out the justifications for doing this and it must be in line with the duty to have due regard and how you reached this decision. | | |
|------------------------------|--|--|--|
| Stop or | Our change would have adverse effects on one or more protected groups that are not justified and cannot be mitigated. | | |
| amend the proposed | Our proposed change must be stopped or amended. | | |
| change | | | |
| Will this decision | Will this decision be considered at a scheduled meeting? e.g. Contracts and Meeting title: Cabinet meeting | | |
| Commissioning | nissioning Board (CCB) / Cabinet Date: 14th February 2023 | | |

7. Sign-Off

| Officers that must approve this decision | | |
|--|---|--|
| Equalities Lead | Name: Naseer Ahmad Date: 12/12/2023 | |
| | Position: Interim Senior Equalities Officer | |
| Director | Name: Date: | |
| | Position: | |

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