

Brighton & Hove City Council

Transport & Sustainability Committee

Agenda Item 16

Subject: Rottingdean High Street AQMA project

Date of meeting: 06 July 2023

Report of: Executive Director, Environment, Economy & Culture

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Ward(s) affected: Rottingdean & West Saltdean

For general release

1. Purpose of the report and policy context

- 1.1 This report seeks committee approval to temporarily remove the planter placed in the southbound carriageway of Rottingdean High Street north of its junction with Park Road once a 4-week period of monitoring traffic diversions on Steyning Road is completed.
- 1.2 The planter was placed as a supporting measure for the air quality improvement scheme implemented in October 2019 (and extended for a further 18 months in April 2021). The scheme aimed to address air quality issues in the section of the High Street south of Park Road where the proximity of building frontages to the kerb means Nitrogen Dioxide (NO₂) levels in excess of EU and UK legislation (and World Health Organisation Guidelines) present the greatest hazard to human health.
- 1.3 Rottingdean High St has been the subject of an Air Quality Management Area since 2013 due to previous levels of Nitrogen dioxide in excess of the 40 micrograms per cubic metre annual mean limit following local authority statutory duties under Part IV of the Environment Act 1995. Current monitoring of the area suggests NO₂ emissions are now within legal limits but the contribution of vehicle diversions away from the area which are caused by the planter is unproven.

2. Recommendations

- 2.1 That the Committee delegates authority to officers to remove and store the planter following a four-week period of traffic counts on Steyning Road ending on 22 July 2023.

2.2 That the Committee delegates authority to officers to conduct a follow up four-week traffic count on Steyning Road beginning on Monday 04 September 2023.

2.3 That the Committee delegates authority to officers to decide whether the planter will be reinstated based on air quality and traffic counter results.

3. Context and background information

3.1 Rottingdean Parish Council and Brighton & Hove City Council formed a joint action group in 2017 in response to serious public concerns about air quality in the lower section of Rottingdean High Street. The Project group, including ward and parish councillors, commissioned traffic modelling to consider various options and proposed an experimental trial on a temporary basis. The modelling was used to finalise the design, which came into operation on 25 October 2019.

3.2 The scheme consisted of the following measures:

- a chicane/planter in the southbound lane of the High St north of the Park Rd junction to restrict the flow of southbound traffic and give priority to northbound traffic,
- a hatched yellow box to prevent queuing southbound traffic stopping in the area south of Dene's Mews
- a no right turn out of West St eastbound into Rottingdean High Street (ETRO-30- 2019).

3.3 Hot combustion processes in air produce oxides of nitrogen (NO_x). Nitrogen dioxide (NO₂) and nitric oxide (NO) are both oxides of nitrogen and together are referred to as NO_x. In the case of Rottingdean High St, road transport is the main source of these emissions. For modern vehicles operating on the public highway, NO_x emissions can be mitigated with selective catalytic reduction on the vehicle exhausts. This technology is less effective in stop-start traffic, when engines idle and exhausts have lower temperatures. Road traffic emissions disperse less effectively in confined spaces such as street canyons.

3.4 Diffusion tube monitoring has provided 'before' and 'after' data for roadside NO₂ emissions in the High St. Initial results during the coldest weather Oct 19 to Feb 20 were promising. The impact of the pandemic on traffic levels in April and May was dominant, but levels then bounced back above 2019 levels (but not as high as 2018) for a few weeks during late summer 2020. This trend has continued (see 3.8 below).

3.5 The original ETRO-30-2019 did not include the chicane/ planter or yellow hatching, neither of which are measures that are subject to traffic regulation orders. These were installed as supporting measures. The sealing of TRO-30-2019 on 04 March 2021 made a right turn ban from the eastern end of West St, Rottingdean a permanent feature.

3.6 The April 2021 committee agreed a further period of up to 18 months from 24 April 2021 to ensure a data set of 12 months data in normal traffic

conditions could be collected from late Summer 2021 when schools fully reopened after the pandemic.

- 3.7 Permission was also sought in March 2021 to consider a left turn ban out of Park Road before the end of the extension period. This was subsequently abandoned on the advice of the accident investigation officer, who noted that all the reported near misses with vehicles turning left out of Park Road seemed to involve vehicles travelling at speed southbound swerving around the planter. It was suggested a left turn ban before the removal of the planter would be pointless. It should be noted there have been no recorded collisions following this scenario to date and evidence remains anecdotal only.
- 3.8 The Council's annual Air Quality Report in autumn 2022 confirmed that a downward trend in NO₂ levels has continued. Current standards designate the safe level at 30 micrograms/ m³. This has now been achieved in the High Street. While the general background NO_x is 12-14, there is still twice as much concentration as this on the High Street and on A259, but this means both are still consistently below 30 µg/m³ (micrograms per meter cubed)
- 3.9 This long-term trend in the High Street is broadly comparable to the national trend. There are a variety of influences behind this trend, including travel behaviour in the immediate post pandemic period, the diesel legacy of the UK fleet (which contributes the greatest proportion of NO_x), petrol vehicle contributions are small but steady increase in hybrid and electric fleets, the impact of the 2022 fuel price crisis as well as seasonal differences where colder temperatures produce higher emissions.
- 3.10 Officers acknowledge the planter may cause revving as vehicles accelerate to get around it when there is a gap in northbound traffic, NO₂ results from the nearest monitor (East 30) has not improved significantly since 2020.
- 3.11 Based on data currently available, it is not possible to say that the planter has had a positive impact. There is no base line or post installation data because traffic diverting along Steyning Road to avoid the lower High Street has not been monitored. There are counters on Chailey Avenue, but these will not count diverting traffic using Newlands Avenue to access the A259 avoiding the lower High Street. This means it is not possible to measure the contribution the planter has made through diversions.

4. Analysis and consideration of alternative options

- 4.1. Given the impact of the planter remains unclear, the project group recommends the installation of temporary traffic counters on Steyning Road to help establish whether the planter has caused diversions that impact on Air Quality.
- 4.2 Officers have agreed to traffic counts commencing before the proposed date when the planter is removed. This will monitor traffic flows on Steyning Road over the last four weeks of the current school term during 'normal' traffic

conditions. The proposal is to then remove the planter during the week commencing 24 July over the school summer holiday period.

- 4.3 A four-week post removal traffic count will begin on Monday 04 September when school term traffic conditions resume. At this time of year, air temperatures will be similar to the pre-removal survey period in June/July. At the end of this period, NO₂ readings from air quality monitoring stations on the lower High Street will be compared with pre and post removal traffic flows on Steyning Road, and a decision on whether to permanently remove or replace the planter will be taken by officers.
- 4.4 The cost of monitoring is approximately £700 per period. Although Ward councillors asked about keeping counters in for the duration of the removal, temporary counters are usually in place for a set period of weeks, not for the duration of a trial as wear and tear will not allow this.
- 4.5 Local concerns about traffic management and increasing congestion have prompted requests for more detailed counts by vehicle class. Officers do not believe the extra cost for this type of monitoring is justified to make decisions about an Air Quality scheme. While the number of HGVs using the High Street is an ongoing local traffic management concern, counters on the High Street south of Steyning Road do monitor this and show they are a small proportion (589 out of an average weekday of 8157 total vehicles during 2022).

5. Community engagement and consultation

- 5.1 The Rottingdean AQMA project group has met since 2017 and consists of Parish Councillors, Ward Councillors and officers from both Brighton & Hove City Council and the Parish Council. This group met most recently in October 2022 and again in January 2023 to consider the results and any potential adjustments to the scheme.
- 5.2 Residents and businesses were consulted on the Experimental Traffic regulation order in 2019-20 and were overwhelmingly in support of the right turn ban at West Street. There were many comments not relevant to the content of the ETRO criticising the placement of the planter as a supporting measure.
- 5.3 Six comments suggested the chicane caused an accident in January 2020. This was not the conclusion of the police investigation, but this claim (along with congestion) was also the subject of a 694-signature petition noted by the Chair at the 23 June 20 ETS. The chair's response set out the air quality aims of the trial, the findings of a police investigation into a collision in January 2020 which did not agree that the planter/ chicane was a contributory factor, and the need to allow the arrangements to continue to allow further time to assess their air quality impacts.
- 5.4 One ward councillor invited feedback from residents in late 2022 on the proposal to remove the planter. There were approximately 30 responses, mostly from people who wanted the planter retained because it made them

feel safer as slower traffic made it easier to cross. Messages of support included some students from St Margaret's Church of England Primary school. Air Quality was the main theme in the responses with people saying they had noticed the improvement. By contrast, it was noted that social media messages were overwhelmingly in favour of removing the planter, but it was not clear how many of the people posting these messages actually lived in Rottingdean.

5.4 At the 28 January 2023 Project Board meeting, Rottingdean Parish Councillors stated they would support temporary removal of planter and continued monitoring so that we can compare situations without and with planter.

5.5 At the same meeting a ward councillor stated she would like to see the planter removed for a fixed period with Air Quality measurements continue during this period and is in favour retaining an option for it to be brought back if negative impacts can be shown.

6. Conclusion

6.1 The temporary removal of the planter/ chicane and the monitoring of traffic flows before and after this will allow an assessment of its air quality impact for the first time. This will allow officers to make a decision on the basis of air quality benefits rather than traffic management considerations.

7. Financial implications

7.1 There are no direct financial implications arising from the recommendations of this report. The LTP (Local Transport Plan) Capital Programme has earmarked funds regarding Rottingdean High Street. Monitoring of the existing scheme will be funded from this earmarked amount as will any temporary or permanent changes to the public highway. Any significant variations to budget will be reported as part of the council's monthly budget monitoring process.

Name of finance officer consulted: John Lack Date consulted 23/06/23

8. Legal implications

8.1 This report is being brought to Committee in accordance with the Council's constitution requirements which charges this Committee to exercise the Council's functions in relation to traffic management and transport. It is therefore in line with the requirements of the constitution.

Name of lawyer consulted: Katie Kam Date consulted 26/06/2023

Supporting Documentation

1. Appendices

Appendix 1. Long term trend in Rottingdean NO₂ levels µg/m³

2. Background documents

Report to Environment, Transport & Sustainability committee 16 March 2021 –
Rottingdean AQMA Trial Extension

[\(Public Pack\)Agenda Document for Environment, Transport & Sustainability
Committee, 16/03/2021 16:00 \(brighton-hove.gov.uk\)](#)