

Strategic assessment, impacts and benefits

1. Traffic filters on key routes across Oxford are intended to improve bus services and journey times, reduce collisions, improve conditions for walking and cycling and improve air quality across the city. When they are operating, private cars will not be allowed through the filters without a permit.

Strategic assessment

2. The traffic filters make a strongly positive contribution to achieving the relevant aims under each theme of the Local Transport and Connectivity Plan (LTCP). The traffic filters support:
 - **Improved health and wellbeing** from reduced traffic flows in areas where air quality is poor and there are high volumes of vulnerable users whose health is adversely affected. Less traffic means a more attractive environment for healthy, active modes (walking and cycling) and creates space for further improvements in walking and cycling infrastructure.
 - **Healthy-place shaping** through reducing traffic, creating opportunities for pedestrianisation and improving public spaces and supporting achievement of “healthy streets” indicators relating to clean air, making roads easier to cross, improving safety, enabling walking and cycling and creating places where everyone is welcome and people feel relaxed.
 - Improvements to the **Environment** by enabling people to shift to more sustainable modes of transport with lower carbon emissions and supporting investment in 159 zero emission buses, saving 7,500 tonnes of carbon per year.
 - Increased walking and cycling **connectivity** by reducing traffic in areas of high pedestrian and cycle movement. Local goods and freight movements to and within the city will be more efficient, through the exemption for goods vehicles from filters.
 - **Productivity** by reducing traffic which improves bus journey times, enables quicker movement of goods and services and enables reallocation of road space to other modes. It supports overall vision to deliver economic success in a way that is low-carbon, inclusive and sustainable.
 - **Inclusivity** through improved local journeys for people in Protected Characteristic Groups including for Blue Badge holders and support/care workers through filter exemptions. Traffic filters will benefit those who currently use buses, including some disabled people, women (who are more likely to use public transport than men), and ‘Black/African/Caribbean/Black British’ residents who have the highest public transport mode share by ethnic group in Oxford.

Expected impacts

Any quoted figures in the following are based on supporting technical analyses and assessments of the proposed Traffic Filters as consulted on between 5th September and the 13th October.

Changes in Traffic and Transport Demand

3. As a result of the scheme car person trips wholly within the city (trips that start and finish within the city boundary) are forecast to reduce by 20% overall, equivalent to 24,800 fewer trips across the average 12-hour weekday (07:00 to 19:00). The reduction in total car trips, including trips to or from the city, is around 26,300. This represents a reduction of 9% in total car trips to, from and within the city.
4. Total traffic flows are forecast to reduce by 35% to 40% across the city centre in inner parts of the city. The largest reductions in traffic levels are forecast in the city centre and on the main roads within the B4495 arc.
5. The traffic filters will cause some vehicles to divert via the ring road, potentially increasing the flows on the outer sections of some radial roads within the city and on the ring road (A34, Eastern By-Pass Road and A40).
6. This includes forecasts of significant increases on the A4144 Woodstock Road; however, further analysis confirms there is insufficient capacity to achieve these increased traffic forecasts, so we would expect any increases to be lower. The proposed northbound bus lane on Woodstock Rd will also protect buses from any increases in delay on this section.
7. Traffic increases are also forecast on Botley Road west of the junction with Seacourt Park and Ride by around an average 10% across a typical weekday, whereas on Hythe Bridge Street traffic is forecast to reduce by around an average 50% across a typical weekday. On the inner section of Botley Road at Osney Bridge, weekday flows are expected to reduce by 4% but it is acknowledged there is a risk of increases in traffic at certain times of the day (e.g. weekends, when Westgate is busiest) as a result of the traffic filters.
8. On the A34 near Oxford and Botley, transport modelling is forecasting changes in traffic flows in the morning and evening peaks, as a result of the filters, by up to 5%, varying by location and direction. During the interpeak flows are forecast to increase by up to around 10%. It is worth noting that observed current flows (2022) on the A34 remain 5-10% below pre-pandemic levels (2018/19).

Bus Performance and Demand (incl. Park and Ride)

9. The total forecast increase in bus trips on an average weekday between 0700 and 1900 is around 2,400 trips with a further 650 increase in Park and Ride trips. As a result of the pandemic and the lasting behavioural impacts (e.g. more home working) Park and Ride demand remains significantly below the levels seen pre-pandemic, so forecast increases in Park and Ride use can be accommodated at existing sites if the trial is approved.
10. Overall, the bus journey time reduction within the inner sections of the city, where traffic flows reduce significantly, is expected to be around 15% in the AM and PM peak periods, and around half that level in the inter-peak (when congestion levels are typically lower). This equates to an average journey time reduction of around 10% over the day as a result of the traffic filters.
11. The efficiency savings that improved journey times will deliver will help support the introduction of new bus services, including improved services across Oxford's 'Eastern Arc'. Across the Oxford SmartZone area as a whole, bus efficiency is expected to increase by 6.5% as a result of the traffic filters.

Walking and Cycling

12. As a result of the filters, walking and cycling trips on an average weekday between 0700 and 1900 are forecast to increase by almost 20,000, the majority of which (17,500) are wholly within the city.
13. Traffic filters would significantly reduce traffic levels in the city, and hence improve the quality of environment and safety (real and perceived) that will, in its own right, encourage increased cycle demand.
14. The traffic filters will also require existing private car trips (those not exempt or using a resident day pass) to consider alternatives. For some trips this will involve re-routing but the improvement in the cycling environment will encourage others to transfer from car to cycle.

Air Quality

15. An air quality assessment has been performed to understand the impact of the traffic filters scheme in 2024 in terms of nitrogen dioxide (NO₂) and particulate matter (PM₁₀ and PM_{2.5}). The area assessed covers both the Oxford City and Botley AQMAs. The assessment confirms the scheme would not result in any exceedances of the national air quality objectives. NO₂ concentrations, are predicted to decrease on 76% of the assessed road links and at 91% of existing monitoring locations as a result of the filters.

16. Road links which show a predicted increase in NO₂, PM₁₀ and PM_{2.5} concentrations as a result of the scheme are located on road links outside of the city centre. This includes the A420 Botley Road near Botley Interchange and A4144 Woodstock Road near Wolvercote Roundabout (both for NO₂), but again, the scheme does not result in any exceedances of the national air quality objectives.

Road Safety

17. As a result of the traffic filters, a total reduction in road casualties of 9% is estimated, almost entirely driven by reductions in levels of traffic within the ring road. Cycling casualties, which are more spatially concentrated in areas where traffic is forecast to reduce, are estimated to decrease by around 13%, whereas motorised casualties are estimated to reduce by around 6% (and pedestrian casualties to fall by 10%).
18. In absolute terms traffic filters are estimated to reduce casualties by around 34 per year, of which over half would be reduced cycle casualties. Within the overall figure the forecast increase in traffic on the ring road is estimated to increase casualties on the ring road by fewer than 3 per year.

Business Impacts

19. A qualitative assessment of potential impacts of traffic filters on businesses – looking at type, size and location of business – has been undertaken. Overall, traffic filters will benefit the majority of people travelling for leisure and commuting purposes, and benefit business trips undertaken on all modes.
20. Many businesses (businesses with fleets of vehicles, taxi/private hire operators, bus operators) will directly experience positive travel time and reliability impacts, as they will be exempt from the filters and will benefit from reduced congestion.
21. Impacts on consumer services businesses will vary according to location, nature of the customer base and modes of travel used for access. It is expected that there will be a positive impact on consumer services businesses in the city centre where most customers travel by non-car modes.
22. For consumer services businesses in district centres, the availability of resident permits and likely low levels of car use for access combine to minimise the potential negative impact on customer demand. There is a possible negative impact on businesses which rely on customers travelling more than two days a week by car (who therefore cannot always use a day pass), but it can be expected that this is a small minority.
23. There may be a moderate labour market impact (specifically recruitment and retention) for schools and hospitals as a result of longer journey times for car journeys which may influence the decisions of staff about work location. Recruitment and retention in schools and hospitals may also benefit from positive impacts of filters in

making bus journeys quicker and more reliable and reducing the likelihood of bus services being cut, enabling schools to recruit and retain staff who rely on public transport.

Climate Action

24. A Climate Impact Assessment for the traffic filters concluded the scheme will have a net positive impact particularly in terms of reducing travel by private car and increasing use of walking, cycling and public transport. Also, the traffic filters will support the introduction of brand-new electric buses accelerating electrification of transport in Oxfordshire.
25. Separately, an assessment of changes in CO₂ by 2024 as a result of the traffic filters, compared to a scenario without the filters in place, shows a 6% reduction in total annual CO₂ emissions from road transport in Oxford.

Natural Habitats

26. The scheme's potential impacts on the Oxford Meadows SAC (Special Areas of Conservation) has been assessed. No impacts requiring mitigation have been identified.

Equalities

27. Traffic filters are likely to have a net positive impact for residents, including Protected Characteristic Groups.
28. The Traffic Filters are likely to reduce traffic volumes and create improved conditions for buses, leading to reduced journey times by public transport. This will disproportionately benefit those who currently use buses, including some disabled people, women (who are more likely to use public transport than men), and 'Black/African/Caribbean/Black British' residents who have the highest public transport mode share by ethnic group in Oxford.
29. There are also likely to be benefits for those who cycle (predominantly those aged 16-24 and those aged 25-44) due to the removal of through-traffic within the Traffic Filters. This will create a safer and more accessible environment for people cycling and has the potential to encourage people from all backgrounds to cycle.
30. It is acknowledged that the Traffic Filters may inconvenience drivers and those who rely on cars; e.g. older people and people from certain ethnic groups. Where the Traffic Filters increase journey times, this may have a disproportionately negative impact on non-professional carers for disabled and/or older residents who are more likely to be making regular trips by car. However, it is important to recognise that motor vehicle access to all locations has been maintained, and exemptions for Blue Badge holders, disabled tax class vehicles, taxis and private hire vehicles, and both

professional and non-professional health and care workers will mitigate the worst of these potential impacts. The ability for residents to obtain day passes will also help mitigate impacts on people making fewer regular journeys for caring purposes