

North East Lincolnshire

Air Quality Topic Paper

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Section 1 Introduction and purpose

Introduction

- 1.0.1** The Habitat Regulations Assessment (HRA, 2025) in relation to the Regulation 18 Options Local Plan consultation identifies the possibility of air pollution arising from increased traffic as a potential impact affecting the Humber Estuary SAC, SPA and Ramsar site. It identifies the A1098 (Taylors Avenue) as a key traffic corridor within the Borough which could be impacted on by new housing and employment development, and which is within 200m of habitats susceptible to the effects of air pollution.
- 1.0.2** The HRA concludes that where development results in a significant increase in annual average daily flows (AADF) alongside this route, there is a potential for likely significant effects on the integrity of protected sites arising from increased air pollution from vehicle emissions. It recommends that AADT calculations are carried out to determine whether air quality modelling is required.

Purpose

- 1.0.3** The purpose of this paper is to address the action raised in the HRA and respond to the issue raised.

Section 2 Findings and Evidence Considerations

Traffic Modelling

- 2.0.1** The Council has commissioned a review (Technical Note 001, 2026) of the general traffic growth along Taylors Avenue using housing and employment trajectories and TEMPro (the Department for Transport's Trip End Model Presentation Program). This has been done for the full plan period 2025-2043.
- 2.0.2** This modelling showed around a 7.5% overall growth over the last 25 years (accounting for the effects of the COVID pandemic) representing a relatively flat growth along Taylors Avenue. The modelling for the 2025-2043 suggests a 19.1% growth along this road during this period.

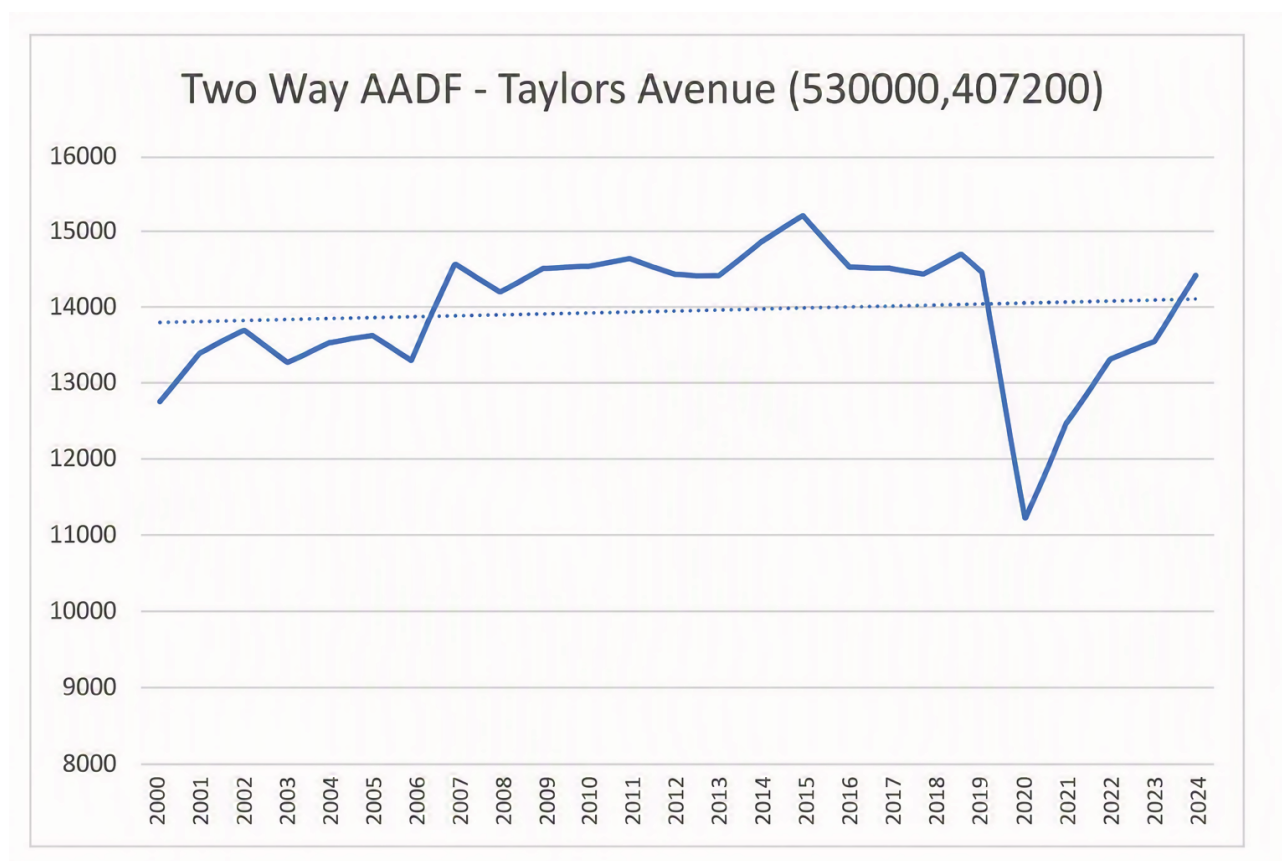


Figure 2.1 Graph showing two way AADF for Taylors Avenue

- 2.0.3** The commissioned report concludes that there would likely be an increase in traffic during the plan period because of additional growth and the impacts of this need to be assessed.

Electric Vehicles

- 2.0.4** In consideration of this projected increase in traffic and associated emissions, the likely take up for higher use of electric vehicles (EV) is seen as crucial to the likely impact and needs to be factored into the growth in traffic along Taylors Avenue.

- 2.0.5** Following consultation with the Council's Highways officers, it is clear that there is a dramatic increase in EV ownership predicted in North East Lincolnshire. Using modelling, over the plan period, the percentage increase in EV ownership will rise as shown in Figure 2.2 Graph showing NOx emissions by fuel type between 2015 and 2043 using NEVIS data..

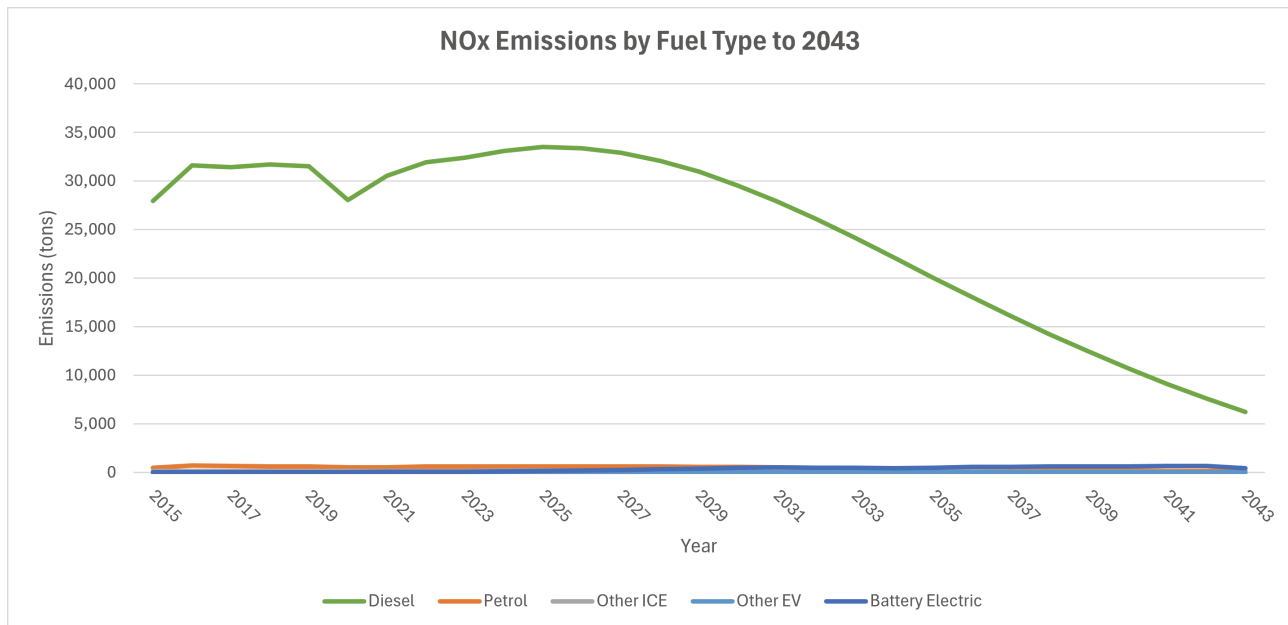


Figure 2.2 Graph showing NOx emissions by fuel type between 2015 and 2043 using NEVIS data.

- 2.0.6** It is acknowledged that the use of EVs does not fully eliminate vehicle emissions. Whilst exhaust emissions are eradicated, when considering AQ, brake wear and road surface abrasion still need to be considered as well as some EVs (such as some particular buses) which still use diesel-powered heating systems (AQEG Advice - on the concept of 'zero emission vehicles', N.D). However, it is without question that EVs will greatly reduce emissions of air pollutants, in particular nitrogen oxide (NOx).
- 2.0.7** Taking into account the likely increase in EVs and the much reduced vehicle emissions as a result, whilst there would be an increase in vehicle movements along the A1098 and within the impact zone over the plan period, it is not anticipated that it would result in an equivalent rise in air quality issues. Indeed, vehicle emissions are likely to decrease overall.

Section 3 Overall Conclusion

Overall Conclusion

- 3.0.1** Taking into account the evidence presented, there would be an increase in traffic along Taylors Avenue (A1098) as a result of the development proposed in the Local Plan. This has the potential to represent a risk for adverse air quality effects on the Humber Estuary SAC, SPA and Ramsar site as identified within the HRA.
- 3.0.2** In response to this matter the composition of the proposed vehicle growth is forecast to change significantly over the same period. The modelling demonstrated a substantial and sustained increase in EV ownership, alongside a corresponding and marked decline in petrol and diesel vehicles.
- 3.0.3** As a result, although traffic volumes are expected to increase, the emissions profile of that traffic will alter significantly. In particular, the reduction in internal combustion engines is anticipated to significantly reduce emissions of key pollutants such as NO_x. While it is recognised that EVs do not eliminate all sources of emissions, these sources are materially lower than those associated with exhaust emissions from petrol and diesel vehicles.
- 3.0.4** On this basis, it is considered that the forecast increase in traffic is unlikely to result in a corresponding increase in air pollution from vehicle emissions. Instead, overall emissions from road traffic are expected to reduce over the plan period.
- 3.0.5** Therefore, taking account of both traffic growth and the projected transition to low-emission vehicles, it is concluded that the risk of likely significant effects on the integrity of the Humber Estuary protected sites arising from traffic-related air pollution will not occur as a result of the proposed development indicated by the revision of the Local Plan.

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