
The Norfolk County Council (Norwich Northern Distributor Road (A1067 to A47(T))) Order

Applicant's comment on Written Representations by Norwich Green Party

Planning Act 2008

Infrastructure Planning

The Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009

PINS Reference Number: TR010015

Document Reference: NCC/EX/30

Author: Norfolk County Council

Version	Date	Status of Version
0	21 July 2014	Final

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Introduction

This document provides the Applicant's responses in respect of substantial issues raised by Norwich Green Party in their Written Representation to the Examining Authority published 3 July 2014. Each issue, or in some cases a summary of it, is shown in italics.

Applicant's comment on Written Representations

Representation

1.1. **Addressing Written Representation paragraph 7**

Our calculations show two main effects in the traffic modelling and carbon calculations from the applicant:

- A wide and deep increase of carbon emissions across Norfolk, with or without the Scheme, which is a consequence of the comprehensive social, economic and development projections within Norfolk County Council's traffic modelling.*

We refer to this as these emissions as NORFOLK-DEEP because they arise from these underlying policy projections, and occur with/without the Scheme. These deeper increases in absolute emissions do not relate directly to the individual scheme, but more to the overall policy context within which the applicant's scheme sits. As such, they may not be attributed to the individual scheme itself.

Therefore, it may be that they do not fall within the potential restriction of the NN-NPS as to consideration of carbon reduction policy. They may also be significant in terms of other planning policy, such as the National Planning Policy Framework (NPPF).

- Scheme specific emission increases [we refer to these as the SCHEME-SPEC increases]. Overall, our work shows that the NORFOLK-DEEP increases are greater than the SCHEME-*

SPEC increases (section 3), and the Scheme acts as a multiplier for the high increases already implicit in the current transport model in Norfolk.

Applicant's comment

- 1.1.1. The methodology used in the assessment for Carbon follows the main principles prescribed in Design Manual for Roads and Bridges (DMRB) HA/207/07, “Air Quality”. An assessment of long-term emissions has also been undertaken following the approach outlined in WebTAG 3.3.5, “The Greenhouse Gases Sub-Objective”.
- 1.1.2. The assessment of carbon emissions follows guidance set out in the DMRB regional impacts assessment and the WebTAG guidance (section 3.3.5). For operational phase effects, both guidance documents set out that emissions from the Scheme (the ‘With Scheme scenario’) should be compared to the baseline (the ‘Without Scheme’ scenario) for each assessment year. The method adopted is based on calculating the emissions for each link in the traffic model based on its length and its vehicle flow characteristics.
- 1.1.3. A single development scenario has been considered in the creation of the traffic model. This scenario is based on the Greater Norwich Development Partnership’s Joint Core Strategy (JCS). This means the same regional growth assumptions exist in the “With” and “Without” Scheme scenarios and the only difference is in the road network layout.
- 1.1.4. Traffic model data has been used to estimate emissions in each scenario. For each road link in the study area the following characteristics are determined: link length, number of vehicles, average speed of vehicles, and percentage of vehicles that are heavy duty (HDV). As noted above, two spatial scopes have been included in the assessment, the Fully Modelled Area’ and the Wider Network.

Representation

1.2. Addressing Written Representation paragraph 10

The large, absolute increases NORFOLK-DEEP would indicate to us that there is a very serious problem with the current transport policy of Norfolk County Council. The key conclusion is that this policy is set to increase emissions contrary to local and national policy; this is with or without the scheme, the scheme specific emissions just make the situation even worse.

Applicant's comment

- 1.2.1. The Norfolk 3rd Local Transport Plan (LTP3), 'Connecting Norfolk' (2011), sets out transport strategy and policy for the County to 2026. The Plan has six strategic aims: maintaining the highway network; delivering sustainable growth; enhancing strategic connections; reducing emissions; improving road safety; and improving accessibility. This demonstrates that reducing carbon emissions is one of several competing aims to any transport infrastructure project. Short to medium term priorities highlighted in the LTP3 for reducing emissions are: complementary infrastructure such as electric vehicle charging points; and promotion of walking and cycling for short journeys. Longer term priorities include: a more efficient vehicle fleet, a significant change in travel behaviour for short journeys, high quality interchange facilities in key urban areas. The NDR project will not affect these priorities for reducing emissions.).

Representation

1.3. Addressing Written Representation paragraph 18

At section 5.5.4 [CARBON-MAIN, pages 201-202], Tables 4.2, 4.3 and 4.4 present CO2 emissions for Broadland, Norwich and “North South Norfolk” LA areas. At section 5.5.5 [CARBON-MAIN, page 202], the percentage of road transport emissions in 2011 for North South Norfolk is given as 2939.49%. This figure should read as 39.86%.

Applicant's comment

- 1.3.1. The description of ‘North South Norfolk’ in Table 4.4 is a reproduction error and should read ‘South Norfolk’. The figures presented throughout the assessment where they may be described as ‘North South Norfolk’ should be read to be South Norfolk only. There is a reproduction error in the Environmental Statement in 5.5.5; the correct value is 39.9%. There is a small difference compared with the NGP figure due to rounding.
- 1.3.2. The NGP describes the Climate Change Act and the targets on reducing GHG emissions set out within. The targets for emission reduction are applicable at the national level and apply to total GHG emissions; they do not apply equally to all emission sectors. In addition, they are not designed to be directly transposed onto Local Authorities or to individual schemes. Please see the report to the Secretaries of State for Transport and Communities and Local Government Ref: DPI/K2610/12/16 The A47 Trunk Road (Postwick Interchange Slip Roads) Order 201 para 8.136 – 8.149.

Representation

1.4. Addressing Written Representation paragraph 19

At section 5.7.11 [CARBON-MAIN, page 210], the 2011 “total GHG” figures from the three LA areas (Broadland, Norwich and “North South Norfolk”) are summed to give a “Norfolk area” figure. This is given as 2,4732,237.3ktCO₂. This figure should read as 2473.2 ktCO₂.

We believe that the authors actually mean “Norwich area” here.

Applicant’s comment

- 1.4.1. The description of ‘North South Norfolk’ in Table 4.4 is a reproduction error and should read ‘South Norfolk’. The figures presented throughout the assessment where they may be described as ‘North South Norfolk’ should be read to be South Norfolk only. There is a reproduction error in the Environmental Statement; the correct value at line 4 of 5.7.11 is 2,473ktCO₂.

Representation

1.5. Addressing Written Representation paragraph 21

In section 5.7.11, the 2017 “Norfolk” (“Norwich area”?) figure is given as 1,8942,094ktCO₂. This figure should read as 2093.0 ktCO₂.

Applicant’s comment

- 1.5.1. There is a reproduction error in the Environmental Statement; the correct value at line 5 of 5.7.11 is 2,094ktCO₂. There is a small difference compared with the NGP figure due to rounding.

Representation

1.6. Addressing Written Representation paragraph 22

In section 5.7.11, the 2032 “Norfolk” (“Norwich area”?) figure is given as 1,4971,654 ktCO₂. This figure should read as 1653.1 ktCO₂.

Applicant’s comment

- 1.6.1. There is a reproduction error in the Environmental Statement; the correct value at line 6 of 5.7.11 is 1,654ktCO₂. There is a small difference compared with the NGP figure due to rounding.

Representation

1.7. Addressing Written Representation paragraph 23

At section 5.7.11 [CARBON-MAIN, page 210], there is a further confusion introduced. The text states that the figures are summed to give a “Norfolk area” figure for comparative purposes. However, the data that is summed are areas referred to as Broadland, Norwich and “North South Norfolk”. We indicate later that, although no explanation is given within the applicant’s submission, we think “North South Norfolk” is a sub-set of the DECC “South Norfolk” data. This is because whilst the figures are not exactly the same, “North South Norfolk” appears to be smaller but just over 90% of the DECC “South Norfolk” figures. We request that the applicant provenance figures are explained.

[We note here also that the applicant is using the 2005-2011 DECC data. This is no longer available on the DECC website, and we have used the 2005-2012 data (see section 3.2).]

Two conclusions derive from this. First, the summed figures do not represent data for the whole County of Norfolk, second, it is not at all clear what area the summed figures do represent exactly. The true figures for the whole of Norfolk, summed over seven District Councils, are much

larger as shown in our table below.

24 In the last sentence of section 5.7.11, two percentages are calculated: 0.763% and 1.21%. We believe these $(1117-1103)/1103=1.26\%$ and are $(1264-1246)/1246=1.44\%$ based on the data for 2017 and 2032 from Table 4.6 [CARBON-MAIN, page 204], and the data for 2017S and 2032S from Table 4.11 [CARBON-MAIN, page 209].

Applicant's comment

- 1.7.1. The description of 'North South Norfolk' is a reproduction error and should read 'South Norfolk'. The figures presented throughout the assessment where they may be described as 'North South Norfolk' should be read to be South Norfolk only. The emission value presented in the ES for 2011 was that taken from the DECC spreadsheet published at that time. An updated version of this spreadsheet has been published, and this has been used by NGP.

Representation

1.8. Addressing Written Representation paragraph 24

In the last sentence of section 5.7.11, two percentages are calculated: 0.763% and 1.21%. We believe these $(1117-1103)/1103=1.26\%$ and are $(1264-1246)/1246=1.44\%$ based on the data for 2017 and 2032 from Table 4.6 [CARBON-MAIN, page 204], and the data for 2017S and 2032S from Table 4.11 [CARBON-MAIN, page 209].

Applicant's comment

- 1.8.1. There is a reproduction error in the last sentence of section 5.7.11. The correct values should read as 0.63% (not 0.763%) (based on $13.2/2,094$) and 1.1% (not 1.21%) (based on $18/1,654$), which represent the changes in 2017 and 2032 respectively.

Representation

1.9. Addressing Written Representation paragraphs 25-27

There is a presentational issue with the data in that the “Fully Modelled Area” (FMA) (section 5.3.5, [CARBON-MAIN, page 186]) is not coterminous with the relevant Local Authority boundaries. This means that it is not possible to directly compare the FMA with the local authority data.

A map of the FMA is shown on Drawing MMD-233906-DT-0990 [CARBON-REF, pages 14/1 5], and it can be seen to include the whole of Norwich City Council, but only parts of Broadland and South Norfolk District Council areas.

The links which make up the “Wider Network” area (WNA) are shown on the same map. This area largely corresponds to the whole of Norfolk, but includes some network in Waveney DC in Suffolk. It is reasonable to consider the WNA as approximating the whole of Norfolk.

Applicant’s comment

1.9.1. NGP note that that the baseline data for the Local Authorities does not represent the same geographic representation as the modelled road network. This is clearly noted in the Environmental Statement in paragraph 5.5.6. Notwithstanding this, the Environmental Statement presents a comparison of the changes in emissions as a result of the scheme in order to provide additional context to the nature of this change. Use of slightly different areas does not materially change the findings or conclusions reached, and this is not claimed by NGP.

Representation

1.10. Addressing Written Representation paragraph 33

The figures show that transport carbon emissions increase in both “without Scheme” and “with Scheme” cases. However, the emissions increase more with the Scheme. For example, in the Fully Modelled Area, carbon emissions increase by 9.85% without the Scheme and by 15.07% with the Scheme by 2032. In the Fully Modelled Area, there is, therefore, an over 50% greater increase in transport carbon emissions with the scheme.

Applicant's comment

- 1.10.1. The traffic flows used to calculate the CO₂ emissions in 2012, 2017 and 2032 were those provided in the Traffic Forecasting Report (Document Ref. 5.6). The focus of the assessment presented in the Environmental Statement is rightly on the impacts of the NDR scheme. Any questioning of the policy background leading to future year baseline flows and emissions is considered to be outside the scope of the EIA. As stated above the methodology used in the assessment for Carbon follows the main principles prescribed in Design Manual for Roads and Bridges (DMRB) HA/207/07, “Air Quality”. An assessment of long-term emissions has also been undertaken following the approach outlined in WebTAG 3.3.5, “The Greenhouse Gases Sub-Objective”.

Representation

1.11. Addressing Written Representation paragraph 37

Here we note that the “North South Norfolk” data is not exactly the same as the DECC South Norfolk figures. It appears to comprise over 90% of the South Norfolk data. No explanation appears to be given of how this data set is derived in the applicant’s submission. The South Norfolk data for 2011 is taken from the latest DECC figures published on 24th June 2014 (see below) and shown for comparison.

Applicant’s comment

- 1.11.1. As noted above, ‘North South Norfolk’ should properly read ‘South Norfolk’. The different values for South Norfolk in 2011 in the Table above arise from changes made by DECC to the calculations of CO₂ emissions in the DECC spreadsheet; the 2011 value published at the time the Environmental Statement was prepared was 907.4ktCO₂, in the latest publication cited by NGP, it is 961.4ktCO₂.

Representation

1.12. Addressing Written Representation paragraphs 34 to 53

Special sector trends (from traffic modelling) against projected whole local authority “total GHGs” (Please refer to Written Representation for text)

Applicant’s comment

- 1.12.1. The focus of the analysis presented above is on the changes in the baseline traffic emissions from 2012 to 2017 and 2032. The focus of the assessment presented in the Environmental Statement is, on the other hand, rightly on the impacts of the NDR scheme itself. Any questioning of the policy background leading to future year baseline flows and emissions is considered to be outside the scope of the EIA.

Representation

1.13. Addressing Written Representation paragraphs 57 to 61

Comparison on Norfolk Projections with DECC Transport Sector projections (Please refer to Written Representation for text)

Applicant's comment

- 1.13.1. The focus of the analysis presented above is on the changes in the baseline traffic emissions from 2012 to 2017 and 2032. The focus of the assessment presented in the Environmental Statement is, on the other hand, rightly on the impacts of the NDR scheme itself. Any questioning of the policy background leading to future year baseline flows and emissions is considered to be outside the scope of the EIA. As stated above the methodology used in the assessment for Carbon follows the main principles prescribed in Design Manual for Roads and Bridges (DMRB) HA/207/07, "Air Quality". An assessment of long-term emissions has also been undertaken following the approach outlined in WebTAG 3.3.5, "The Greenhouse Gases Sub-Objective".
- 1.13.2. It should be noted that the DECC projections for the UK are for the transport sector as a whole and take into account a wider range of factors including future fuel efficiencies in addition, policies at the national level relating to the expected increased use of hybrid-electric and electric vehicles after 2035 are not accounted for in the calculations presented in this assessment.

Representation

1.14. Addressing Written Representation paragraphs 66 to 68

Divergence with NCC interpretation (Please refer to Written Representation for text)

Applicant's comment

- 1.14.1. The NGP set out counter positions as to why the scheme is not compatible with planning policy.
- 1.14.2. The main objective of the Environmental Impact Assessment is rightly to determine the impact of the NDR scheme. As stated above the methodology used in the assessment for Carbon follows the main principles prescribed in Design Manual for Roads and Bridges (DMRB) HA/207/07, "Air Quality". An assessment of long-term emissions has also been undertaken following the approach outlined in WebTAG 3.3.5, "The Greenhouse Gases Sub-Objective".NGP recognise in para 67 above that the change in traffic is determined by the Department for Transport's NTEM, which is the required basis for the applicants to determine future flows.

Representation

1.15. Addressing WR paragraph 72

The Climate Change Act requires a 34% reduction in GHGs by 2020 and an 80% reduction by 2050. These reduction targets are set in 5-yearly target regimes for 2008-12, 2013-17 and 2018- 2022 by the Climate Change Committee, the independent body that advises the UK Government on setting carbon budgets, reports to Parliament on progress made in reducing GHGs.

Applicant's comment

- 1.15.1. The NGP describes the Climate Change Act and the targets on reducing GHG emissions set out within. The targets for emission reduction are applicable at the national level and apply to total GHG emissions; they do not apply equally to all emission sectors. In addition, they are not designed to be directly transposed onto Local Authorities or to individual schemes. Please see the report to the Secretaries of State for Transport and Communities and Local Government Ref: DPI/K2610/12/16 The A47 Trunk Road (Postwick Interchange Slip Roads) Order 201 paras 8.136 – 8.149.

Representation

1.16. Addressing WR paragraphs 84 and 85

Norfolk's 3rd Local Transport Plan (LTP3), Connecting Norfolk: Norfolk's Transport Plan for 2026, sets out Norfolk's Transport Vision:

"A transport system that allows residents and visitors a range of low carbon options to meet their transport needs and attracts and retains business investment in the county".

85 Reducing emissions is one of the six strategic aims in LTP3. The Scheme is contrary to this aim, and in providing low carbon options for travel.

Applicant's comment

1.16.1. The As noted within paragraph 5.2.24 of the ES, The Norfolk 3rd Local Transport Plan (LTP3), 'Connecting Norfolk' (2011), sets out transport strategy and policy for the County to 2026. The Plan has six strategic aims:

- maintaining the highway network;
- delivering sustainable growth;
- enhancing strategic connections;
- reducing emissions;
- improving road safety; and
- improving accessibility.

1.16.2. This demonstrates that reducing carbon emissions is one of several competing aims to any transport infrastructure project.

- 1.16.3. Short to medium term priorities highlighted in the LTP3 for reducing emissions are:
- Complementary infrastructure such as electric vehicle charging points; and
 - Promotion of walking and cycling for short journeys.
- 1.16.4. Longer term priorities include:
- A more efficient vehicle fleet, a significant change in travel behaviour for short journeys, high quality interchange facilities in key urban areas.
- 1.16.5. The NDR project will not affect these priorities for reducing emissions. Instead, the LTP3 specifically mentions the NDR as a facilitator of economic growth in the Greater Norwich area and provider of strategic access to Norwich airport (paragraph 4.11 of LTP3).

Representation

1.17. **Addressing Written Representation paragraphs 86 to 88**

We return to our Conclusions 1 and 2 that absolute levels of transport emissions significantly increase over both modelled areas, irrespective of the Scheme. The lowest percentage increase between 2012 and 2032 is 9.85% over the FMA; the corresponding increase with the scheme (ie 2032S) is 15.07%. So the Scheme is a multiplier to emissions increases which are projected to occur over time in Norfolk anyway.

87 We noted at the outset, two types of emission increase:

- *NORFOLK-DEEP – the background increase due to increased traffic. This is seen for both FMA and WNA spatial models. “Wide” here does not refer to geography, but the impact of the emission increases, and*
- *SCHEME-SPEC – those specific to the Scheme.*

The 9.85% is the NORFOLK-DEEP increase observed “without the Scheme” in the above example, whilst the Scheme provides the multiplier producing 15.07% increase with the Scheme.

Applicant’s comment

- 1.17.1. As stated above the methodology used in the assessment for Carbon follows the main principles prescribed in Design Manual for Roads and Bridges (DMRB) HA/207/07, “Air Quality”. An assessment of long-term emissions has also been undertaken following the approach outlined in WebTAG 3.3.5, “The Greenhouse Gases Sub-Objective”.
- 1.17.2. It should also be noted that, whilst the ES has provided a calculation of the carbon effects of the NDR in accordance with current guidance and the NDR Scoping Opinion, emerging policy is moving away from there being a need for such an assessment as indicated in paragraph 3.4 of the draft national policy statement for national road and rail networks “While, considered in isolation, individual schemes may result in an increase in CO₂ emissions, the Government’s overarching plan for reducing carbon emissions will ensure that any such increases do not compromise its overall CO₂ reduction commitments. Increases in carbon emissions from a development should not therefore need to be considered by the Examining Authority and the Secretary of State” (see paragraph 5.4.16 of Volume 1 Chapter 5 of the Environmental Statement (Document Ref 6.1)).

Representation

1.18. Addressing WR paragraphs 91 to 95

We understand that the NPS-NN may set limitations to this on individual schemes, although the Policy is not fully legislated, and may still change from the current draft version in this respect.

The House of Commons Transport Committee recently investigated the NPS-NN7, and noted that the Government’s view “that planning decisions should not generally include consideration of Government policy on reducing carbon emissions” is controversial.

The draft NPS-NN states that a road-building programme on the scale currently envisaged would account for under 0.1% of average annual carbon emissions. However, the Transport Committee appear sceptical of this, thought it should be investigated further, and recommended an estimate of the impact on UK carbon emissions of meeting projected demand for growth in road traffic by building more road infrastructure is calculated. There were calls for this metric, then, to be monitored very closely.

We believe the “Norfolk example”, as described by the calculations in this submission, is a case in point. We have found emissions will increase significantly in Norfolk on current transport planning, even without the Scheme. The Scheme is then a multiplier of that effect. If this is repeated across the Country, we can expect emissions to increase by two orders of magnitude greater (ie. in the 10% range rather than 0.1% range). In Norfolk, the equivalent figures are in the 9.8% and 15.75% range (Table 1).

We strongly suggest that for the proposals before the ExA, that the increases in Transport Carbon emissions of both the Scheme itself (SCHEME-SPEC) and the wider Norfolk economy (NORFOLK-DEEP) are considered by the ExA as a material concern in the Examination.

Applicant's comment

- 1.18.1. As stated above the methodology used in the assessment for Carbon follows the main principles prescribed in Design Manual for Roads and Bridges (DMRB) HA/207/07, "Air Quality". An assessment of long-term emissions has also been undertaken following the approach outlined in WebTAG 3.3.5, "The Greenhouse Gases Sub-Objective".
- 1.18.2. It should also be noted that, whilst the ES has provided a calculation of the carbon effects of the NDR in accordance with current guidance and the NDR Scoping Opinion, emerging policy is moving away from there being a need for such an assessment as indicated in paragraph 3.4 of the draft national policy statement for national road and rail networks "While, considered in isolation, individual schemes may result in an increase in CO₂ emissions, the Government's overarching plan for reducing carbon emissions will ensure that any such increases do not compromise its overall CO₂ reduction commitments. Increases in carbon emissions from a development should not therefore need to be considered by the Examining Authority and the Secretary of State" (see paragraph 5.4.16 of Volume 1 Chapter 5 of the Environmental Statement (Document Ref 6.1)).