

Responses to Editors and Reviewers

Public justification (visible to the public if the article is accepted and published):

This manuscript could be accepted after minor revisions following the reviewer's comments (see report #1) concerning the uncertainties and related issue.

- The uncertainties in annual vehicular NH₃ emissions have been added to the manuscript (line 164). However these should also be included in the abstract.

We have added uncertainty ranges in the abstract.

- A detailed explanation of how the uncertainties have been derived (i.e. using measurements from various literature studies) should be provided. Table R1 (uncertainty ranges of NH₃ emission factors) should be included in the manuscript.

We have explained the derivation of uncertainties in section 2.1 of the manuscript (Line 96-99) and added Table R1 into the Supplementary Information (Table S4).

- The emission uncertainties should be followed through to all statistics/results throughout the manuscript e.g. how does this potentially affect the proportion of grids where vehicular emissions exceed agricultural.

We have carefully revised the manuscript and added uncertainty ranges for all statistics through the manuscript.