Overall, I found the author revisions to clarify the motivation, the method, and the results substantially.
The specific objective was to create a new variable of regression slopes (two-year averages vs. the base average over the whole period (or climatology)) to reduce scatter in monthly wet deposition data to help elucidate patterns in trends.

These reduced slope patterns were used to identify inflection points to break the overall trend into 3 phases (for sulfate at 3 sites in central and eastern Canada) or 2 phases (for nitrate in central and eastern Canada) and link them to patterns in central and eastern Canadian emissions of gaseous precursors (SO_2 and NOx). No linkage to emissions could be found for deposited NH_4 and gaseous NH_3, which was attributed to the complex phase-transitioning, and transport and removal mechanisms.
Additionally, no linkage could be found between wet deposition and emissions in the western Canadian site. An explanation as a decadal wind field shift was offered as a possible explanation for this.

The sections on Climate anomalies have been clarified and defined sufficiently.

Concerning the 'Justification of Data removal and the Applicability of method', there were significant concerns with the removal of data by both reviewers. This included a) the removal of maximum monthly wet deposition flux data and b) the omission of the m-values for 1998-1999. The primary concern is that this compromised the "robustness" of the technique and the applicability to other scenarios.

a) The edits made by the author have made the process and decisions behind the removal of the monthly maximum wet deposition flux data clear. The statistical justification is already clearly explained, and the scientific justification has been expanded to include both the geometric mean of the concentration in the precipitation samples and the precipitation depth. The authors need to further revise this justification to include the washout dilution effect concentrations in precipitation tend to decrease with elevated amounts of sustained precipitation (see Schichtel et al., 2019 STOTEN https://doi.org/10.1016/j.scitotenv.2019.06.104 and references therein; see explanation in 2.2.2 with Washout equation #4 and Figure 2). This example includes several sources with a conflicting interpretation of the justification given by the authors and may also explain the observed negative bias of the 5 of 12 monthly maximum wet deposition flux data which the authors did not address (lines 218-221).

b) I still question if the removal of the 1998-1999 m-value was driven by the desired fit with the sulfate emissions in ON. The nitrate m-values for the same timeframe is elevated along with NOx emissions and its slope (m=1.31) is comparable with those as recent as 1992-1993 (m=1.35). However, the regression of 1998-1999 does appear to be skewed by (N=6) F_{wet} values falling between 100 and 175 mg m^{-2}, and there is scientific justification of the geometric mean of the concentration in the precipitation samples and the precipitation depth given for this and in Figure S6. The statistical justification also appears reasonable. While I may disagree with this decision, it is clearly defended and I don't think that it detracts from the applicability of the method and the authors did remove the term "robustly" from descriptions of the technique. No further action is needed on this.

In determining concentration and emission linkages, no uncertainties with the emissions data was identified, except briefly on line 564 (for NOx). The uncertainty of NH_3 emissions inventories (dispersion of localized sources, poor characterization of process-level emission) also likely play a role in the lack of correlation with deposited NH_4.

With further revision, the section in the Supplemental Information on the comparison of the four approaches (A, B, C, D) is informative and helps to see why the authors chose the method they are proposing.

TECHNICAL COMMENTS

- *Figures S5 and S6 should be updated to S7 and S8 (line 523).*
- *Line 526 should read 'annual'*