

Interactive comment on “Potential Regional Air Quality Impacts of Cannabis Cultivation Facilities in Denver, Colorado” by Chi-Tsan Wang et al.

Anonymous Referee #1

Received and published: 2 July 2019

This manuscript is well written and provides an important initial step toward estimating VOC emissions from a growing industrial sector and demonstrates potential air quality impacts that might be anticipated given some of the range in uncertainty related to quantifying these emissions.

I only have a few minor suggestions/potential revisions.

Section 3.2.1 is rather hard to follow. The paragraph starting at line 351 talks about reductions in pollutants but the levels that follow seem to increase. Also, I found this section a little hard to follow since I am working with the presumption there are no photochemical reactions happening and everything being discussed relates to non-photochemical reactions in the model. Is that correct? I was a little surprised that hydroxyl radical production could increase overnight.

C1

Section 3.2.3 line 397 discusses the increase in overnight O₃ but I am not sure this would really be relevant in a discussion about implications with policy relevance since overnight O₃ levels are usually well below the level of the standard.

In the conclusion section, line 402-403 needs a qualification that the emissions is the first inventory for Colorado and not the United States.

Interactive comment on Atmos. Chem. Phys. Discuss., <https://doi.org/10.5194/acp-2019-479>, 2019.

C2