Review Comments

General comments on the manuscript:

It is evident that the authors maximized their use of conservative and non-conservative tracers to effectively characterize lake typology. They carefully considered most physical variables influencing their results and their data shows strong distinction among groupings, as backed by their statistical analyses.

This paper provides important data that characterizes hydrological conditions in an area that is expected to experience more landscape (development) changes. The typology of lakes provides an important baseline for comparison to future hydrological regimes that may be altered.

I am a fan of the study site description.

The field measurements and water sample collection provide important details for other researchers to consider when doing this type of analysis.

251 – I'm a bit confused about their assumption that the lakes are at isotopic steady state when their data shows that recharge lakes have EI > 1.

350 – Is the lower DOC because of dilution over a greater water volume? Would be interesting to know if catchment land cover could explain some of that difference. I see they get at that in the discussion at 453 with catch area:lake area and again at 605, but land cover has been left out. That's fine, but the possibility that land cover influences non-conservative tracers should be mentioned.

Minor edits:

95 – Strange end to the sentence.

164 – Change 'digitalized' to digitized. What imagery was being used in Google Earth? That is what should be mentioned.

171-173 – Sentence should be cleaned up.

Fig 2b – Typo – change to 'Local Evaporation Line'

213 – I assume the isotope work was done in their own lab since no other one is mentioned.

Table 1 – Sort rows in order of nutrients, ions, isotopes. Caption should just say that 'lower and upper elevation ranges represent the standard deviation'

425 – 'But those are for the most…'??

483 – Use different choice of word/phrase for ‘supposed to be’

634 – While it was noted that the recharge lakes are more susceptible to evaporative-drawdown during dry conditions, it could also be noted that discharge lakes may be more susceptible to contamination as development encroaches into the source water locations. The point could also be made around 669.

683 – Could be mentioned that paleo work could provide a reference for evaluating whether present hydrological conditions are within the range of natural variability. Furthermore his would significantly complement their baseline knowledge of hydrological conditions as development continues in the area.

Notes on previous reviewer comments:

The previous reviewer had many useful comments for the authors to consider, and overall the authors responded with the necessary revisions. I agree with the authors’ responses where the reviewer comments questioned the utility of their approach. In particular, the reviewers comment about the authors’ ‘indirect’ evidence (chemistry and isotopes) of findings suggests his/her lack of confidence in the approach despite the clear evidence presented in the paper. As the authors note, the resources required to make the necessary direct measurements would be immense, but are clearly detectable using more feasible and sustainable approaches that can be applied at greater spatial scales. This point could even be showcased more in the paper.