



## ***Interactive comment on “Modelling oxygen isotopes in the University of Victoria Earth System Climate Model” by C. E. Brennan et al.***

**Anonymous Referee #2**

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In their paper, “Modelling oxygen isotopes in the University of Victoria Earth System Climate Model,” Brennan et al. documents the incorporation of stable isotopes into the intermediate complexity model UVic ESCM. This model cannot be used to interpret stable isotopes in precipitation because it cannot capture the changes in hydrology without proper atmospheric dynamics. The authors argue that this model may be used to study isotopes in ocean sediment. However, the isotopic composition of the surface water is primarily governed by the balance between evaporation and precipitation, and I don’t think this model can resolve the changes of this balance for any given forcing due to the absence of atmospheric dynamics. I cannot recommend publishing this paper.

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