

Interactive comment on “Use of satellite data to assess the impacts of irrigation withdrawals on Upper Klamath Lake, Oregon” by Q. Tang et al.

Anonymous Referee #2

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This paper reports a very interesting and important study for the estimation of evapotranspiration using satellite data and in combination with the VIC model to estimate irrigation consumption.

Nevertheless, a few minor technical issues need be clarified:

1. P9, L7-9, ‘For days when cloudy conditions prohibit data acquisition, the surface temperature for the closest available day is used instead; although the surface temperature can have large day-to-day variations, an energy conservation criterion effectively constrains errors from this source.’ needs some more detailed explanation. Because surface temperature is influenced by clouds, temporal interpolation does not make much physical sense. It seems that the method adopted is just for filling gaps to produce continuous remote sensing estimates.

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2. In the VI-Ts diagram method, the upper and lower limits are dependent on the actual meteorological conditions as well as the land cover/vegetation conditions, it is unlikely that a universal relationship can be founded. This is also confirmed by the authors on P8, L25-29. Some detailed explanation of the averaging is necessary.

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