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Hydrology and Earth System Sciences Discussions

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

Q. Tang et al.

qiuhong@hydro.washington.edu

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We thank the anonymous referee for the valuable comments. 1. Although the surface temperature can have large day-to-day variations, small day-to-day variations of evaporative fraction, defined as the ratio of ET to available energy, and energy conservation effectively constrain errors from this source. This is detailed explained in reference Tang et al (2009). We did not do temporal interpolation of surface temperature. Because the evaporative fraction has small day-to-day variations, the evaporative fraction, which is estimated from surface temperature of the closest available day, is used when the surface temperature is unavailable. 2. The performance of the remote sensing ET method is documented in the reference Tang et al (2009). The VI-Ts method works best over areas where there is substantial diversity in vegetation types within

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the remote sensing window. The restriction of condition is well met by the substantial contrast in VI and Ts across the interface between irrigated cropland and surrounding areas. We have included the main conclusions of the reference in Section 3.

Interactive comment on Hydrol. Earth Syst. Sci. Discuss., 6, 1261, 2009.