

## ***Interactive comment on “The influence of riparian evapotranspiration on stream hydrology and nitrogen retention in a subhumid Mediterranean catchment” by Anna Lupon et al.***

**Anonymous Referee #1**

Received and published: 13 April 2016

Comments to Editor: This is a very interesting paper that should be published after only some minor corrections. The paper is straightforward and convincing and will be a valuable contribution to the field.

Comments to Author: Major concern: The only major point is that there is no differentiation between winter and summer type diurnal signal therefore false calculation/interpretation of  $Q_{\text{lost}}$  in the dormant season.  $Q_{\text{lost}}$  estimation (used in paper) is good only for summer type signal. But in dormant season there is another so called winter type signal, which has a different shape and phase than summer type. The inducing effect of winter type signal is freezing and thawing not ET (see e.g. Lundquist and Cayan 2002, Gribovszki et al. 2010 [see in References]). Lundquist, J.D., Cayan,

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D.R., 2002. Seasonal and spatial patterns in diurnal cycles in streamflow in the western United States. *Journal of Hydrometeorology* 3 (October), 591–1603.

Minor points see in attached manuscript with comments

Please also note the supplement to this comment:

<http://www.hydrol-earth-syst-sci-discuss.net/hess-2016-56/hess-2016-56-RC1-supplement.pdf>

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Interactive comment on Hydrol. Earth Syst. Sci. Discuss., doi:10.5194/hess-2016-56, 2016.

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