

## ***Interactive comment on “Does forest replacement increase water supply in watersheds? Analysis through hydrological simulation” by Ronalton Evandro Machado et al.***

### **Anonymous Referee #2**

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General comments 1. The difference of water balance between 2 scenarios (current use and ESAs) is questionable. Based on results in Table 5 assuming similar annual rainfall, evapotranspiration increases 69.1 mm/y and water yield decreases 283.5 mm/y, its balance is -214.4 mm/y, but soil water content (or soil-water storage) is -1,166.3 mm/y. Basic water balance for sub-basin and the whole catchment should be re-checked.

Specific comments 1. P7L5-10: what is water balance equation in sub-basin? 2. P7L6: Partition of rainfall into Q, E, S are watershed water balance, not watershed hydrological regime. 3. P8L10-15: Some sentences are repeating written. 4. P8L22:

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what is the meaning of “... flows in intervals of 5 in 5% of flow-duration curve...”. 5. Figure 8: legend of lithosols and cambisols are not clear, check hydrography 's legend. 6. Table 4: adding one more row for total number. 7. P15L9: replace Figure 7 with Figure 5. 8. P17L1: increased forest cover in the watershed in Table 3 is 373.67%. 9. P17L5: How SWAT incorporate greater infiltration rate from more forest area? 10. P17L13: replace water yield (-45.8%) with (-19.3%). 11. Figure 14: its caption should be 14(a) whole , 14(b) wet 14(c) dry 12. Figure 15: similar to Figure 14.

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