Reply to reviewer

We would like to thank the reviewer for valuable suggestions and comments. In this document, **P** refers to the page number and **L** refers to the line number in the recent paper. For example, **P3L65-70**, refers to page 3, lines 65-70.

Reviewer		
No	**Comment**	**Reply**
1	Deficit volume is expressed in m^3 but derived from average daily or monthly flow in m^3 sec^{-1}. Please provide the actual deficits volumes in m^3 or change the unit and explain how someone (e.g. a water manager) can calculate the actual volume of water missed. Another solution would be to transfer flow to mm / day and derive deficit volume from these time series.	We thank the reviewer for his/her remark. Indeed the reviewer is correct that we derive the deficit volume from average daily streamflow in m^3 s^{-1}. We changed the streamflow unit into m^3 d^{-1} for deficit volume calculation in the revised manuscript (table caption and text) (e.g. **P10L323, P37** Table 1) and explained how to calculate the actual deficit volume in m^3 (**P7L225-P8L227**).
2	L16: „Earlier drought" -> could state earlier in the year as earlier could also refer to the considered period.	We revised the sentence into "….drought occurrences earlier than….." (**P1L16-17**).
3	L45: "The standardized drought indices" -> could replace with "These standardized drought indices" as there are others (not mentioned ones).	We revised the text accordingly (**P2L45**).
4	Line 152-154: From this sentence, it is still not completely clear how you calculated the 12 monthly thresholds.	To make it clear, we divided the sentence into two parts. First part is dedicated for VTM (**P5L151-152**) and the second part is for VTD (**P5L152-153**). We also added explanation that we followed the M_MA method in Beyene et al. (2014) (**P5L157**).
5	Line 182: Suggest removing "widely selected".	The words were deleted (**P6L182**).
6	Line 189: "was" -> "were"	We revised the word accordingly (**P6L189**).
7	Line 285: "somewhat lower"-> I would not call such a large decrease "somewhat lower"	The word "somewhat" was deleted (**P9L286**).
8	Line 310: "60% shorter" -> I think 40% shorter (60% of the original)	We thank the reviewer for careful reading and we changed the number into 40% (**P10L311**).
9	Line 320-329: Here, I would specifically mention differences in average river basin size among climates, as this might be a large contributor to differences in deficit volume.	The sentence was added in the revised manuscript (**P11L330-331**).
10	Line 525: Could start a new section here.	We decided to leave it as it is.
11	Line 532: "cause impacts" à replace with "might cause impacts" as this is particularly questionable in the high flow season.	We revised the sentence accordingly (**P17L534**).
12	Line 534: "or if observation record is short" -> do not agree. Why are monthly methods more suitable for short records compared to daily methods?	We revised the sentence and removed "or if observation record is short" (**P17L535-536**).

Reference

Beyene, B. S., Van Loon, A. F., Van Lanen, H. A. J. & Torfs, P. J. J. F. Investigation of variable threshold level approaches for hydrological drought identification. Hydrol. Earth Syst. Sci. Discuss., 11, 12765–12797, doi:10.5194/hessd-11-12765-2014, 2014.