Chapter	From Page	From Line	To Page	To Line	Comment
3	0				I wish to thank the authors and the review editors for considering my comments on the first draft and addressing some of them. Not all of my review comments were addressed, neither those addressed were made in a perfect way, but this is understandable as the authors's views apparently are different from mine. But I am generally satisfied that my comments were considered.
3	0				[This comment does not refer to the substance of the chaper but to the IPCC procedures] I found it very disturbing that the Second-Order Draft files do not allow any use of reviewing/annotating tools on the pdf. Comments on the pdf were not allowed also in the first draft, but at least the latter allowed copy and paste, which enabled some indirect use of reviewing tools. The Second-Order Draft has disabled even copy-paste, so if a reviewer wishes to refer to a phrase in the Draft, he must retype it. Certainly, this discourages reviewing more than in the first draft. I hope that in any next phase these restrictions be removed so that a reviewer can inserts his comments in his personal draft when reading it, before he organizes them in Excel format.
3	0				I see that the Second-Order Draft may contain substantial changes at points. However, given the above caveat/discouragement, I decided not to review the entire document but to check it with respect to addressing my review comments on the earlier draft. In particular, based on my earlier review report, I will only suggest a few additions, which I regard very important.
3	10	3	10	4	In the phrase "There is no strong evidence for trends in flooding in the USA (Hirsch and Ryberg, 2012)…" the adjective "strong" is not necessary. In addition the work by Lins and Cohn (2011; already in the reference list) should be added here.
3	10	17	10	17	I reiterate my earlier comment on Hurst. I strongly insist that mentioning the Hurst-Kolmogorov phenomenon (long-term persistence) in the Freshwater Chapter is absolutely necessary and relevant. If hydrologists fail to refer to it, how can we expect from climatologists and scientists from other disciplines to mention it in other chapters? I suggest to refer to it by adding the following paragraph: “It should be mentioned that many of the trend analyses in the literature are based on classical statistical tests that are based on the assumption of time independence for the tested process. However, the pioneering work by Hurst (1951) has shown that hydrological and other geophysical processes are not independent in time but, on the contrary, are characterized by long-range dependence, also known as long-term persistence. The Hurst behaviour is a prominent characteristic of climate (Markonis and Koutsoyiannis, 2013; Koutsoyiannis, 2013). If this behaviour is accounted for, many of the trends rendered as significant by classical statistical tests become insignificant (Cohn and Lins, 2005).” References to be added Cohn, T. A., and H. F. Lins, Nature's style: Naturally trendy, Geophysical Research Letters, 32 (23), doi:10.1029/2005GL024476, 2005. Hurst, H. E., Long term storage capacities of reservoirs, Trans. Am. Soc. Civil Engrs., 116, 776-808, 1951. Koutsoyiannis, D., Hydrology and Change, Hydrological Sciences Journal, doi: 10.1080/02626667.2013.804626, 2013. Markonis, Y., and D. Koutsoyiannis, Climatic variability over time scales spanning nine orders of magnitude: Connecting Milankovitch cycles with Hurst–Kolmogorov dynamics, Surveys in Geophysics, 34 (2), 181–207, 2013.
3	27	47	28	2	I welcome the new paragraph which is in accord to what I had suggested. I think its addition is a step toward more balanced presentation of the literature. A minor point: Lins and Cohn (2011) appears twice in the paragraph but I think this is an error. Its first appearence should be deleted (it is out of context), while the second is fine.

3	28	3	28	3	I reiterate my earlier comment on the discussion of the IPCC AR4 report (chapter on Freshwater), which is very relevant to uncertainty, the subject of this section. I suggest to refer to it by adding the following paragraph: “Uncertainty was the central issue of an extended discussion (Koutsoyiannis et al., 2009; Kundzewicz et al., 2009) as a follow up of a summary of the corresponding Freshwater Chapter of the IPCC AR4 (Kundzewicz et al., 2008). Koutsoyiannis et al. (2009) imply that the climate system and particularly its components related to freshwater are fundamentally unpredictable, and that hydrologists and water managers should give more emphasis on understanding and modeling the uncertainty per se, rather than relying on hopeless deterministic projections. On the other hand, Kundzewicz et al. (2009) argue that scenarios of the future which present plausible futures of climate are necessary for supporting present-day decisions with respect to mitigation of and adaptation to climate change in the water sector.” References to be added Koutsoyiannis, D., A. Montanari, H. F. Lins, and T.A. Cohn, Climate, hydrology and freshwater: towards an interactive incorporation of hydrological experience into climate research—DISCUSSION of “The implications of projected climate change for freshwater resources and their management”, Hydrological Sciences Journal, 54 (2), 394–405, 2009. Kundzewicz, Z. W., L. J. Mata, N. W. Arnell, P. Döll, B. Jimenez, K. Miller, T. Oki, Z. Şen and I. Shiklomanov, The implications of projected climate change for freshwater resources and their management, Hydrological Sciences Journal, 53(1), 3–10, 2008. Kundzewicz, Z. W., L. J. Mata, N. W. Arnell, P. Döll, B. Jimenez, K. Miller, T. Oki and Z. Şen, Water and climate projections—Reply to discussion “Climate, hydrology and freshwater: towards an interactive incorporation of hydrological experience into climate research”, Hydrological Sciences Journal, 54(2), 406-415, 2009.