

Interactive comment on “Soil-water dynamics and unsaturated storage during snowmelt following wildfire” by B. A. Ebel et al.

Anonymous Referee #1

Received and published: 20 January 2012

Thank you for the opportunity to review the manuscript titled “Soil-water dynamics and unsaturated storage during snowmelt followed by wildfire.” The paper is concise and very well written and should be of great interest to the scientific community. The literature review and knowledge of the subjects presented are outstanding.

P442, L20 Reword to “. . . indicate that the amount of snowmelt-driven. . .”

P443, L28 reword to “Reported effect on snow accumulation. . .”

P444, L5 Maybe mention what they attribute the lower SWE to in this case?

P446, L20 This is a good place to call figure 1.

P446, L27 Double check this but I don’t think there is an a at the end. The main soil

C11

type is an alfisol, but the taxonomic name uses only alf at the end to indicate that.

P447, L17 It wasn’t clear to me here what the difference is between seasonal and intermittent.

P447, L26-27 I was confused here because the figure shows UBNF as well as UBSF which are not mentioned here.

P453, L9 May want to call figure 1 here, first mention of UBNF? Or include some description of UBNF and UBSF where you first call figure 1.

P454, L26 Change to “...behaved similarly during...”

P455, L 2 use “period” instead of “spell”

P455, L8-9 Be consistent with previous sentence (12 and 13 Apr.) or change that one to 12-13 Apr.

P458, L6 You use both montane and mountainous, might want to chose one or the other to be consistent.

P459, L1-13 This could be combined in one sentence as both studies found the same low albedo effect.

P461, L1 Add “...data from the south-facing burned slopes...”

P461, L2 Did you determine porosity assuming full saturation during retention experiments or from particle and bulk density data?

P461, L3-4 reword to “...capacity, compared to unburned slopes.”

P461, L6-9 I was expecting some mention of the role of hydrophobicity here, is that not a significant effect?

P462, L9 could delete “described herein”

Tables. Is there a reason UBSF and UBNF are not included in the tables?

C12

Figure 6C- This graph is not technically a time series like A and B because time is not an axis.

Interactive comment on Hydrol. Earth Syst. Sci. Discuss., 9, 441, 2012.