

**A Summary of Revisions and Responses on “Spatial optimization of watershed best management practices based on slope position units” (Ref. No.: JSWC-D-17-00140)**

**With regards to general comments from Reviewer #1:**

*“The paper addresses an interesting issue concerning spatial optimization of watershed best management practices. The proposed approach builds on terrain attributes, namely on slope positions. The carefully and watchfully written manuscript is clearly structured and put into correct format. I propose its publication in its present form.”*

We appreciate the approval from Reviewer #1.

**With regards to specific comments from Reviewer #2:**

**1. “References of line 541, 573, 676 are missing in the text, and the hyperlink is not working.”**

References of line 541, 573, and 676 in original manuscript are not cited in current manuscript and have been removed. We also checked the full text to make sure all references are cited and vice versa.

**2. “Line 142 Pennock et al. 1987 is missing in the references section.”**

This reference (Pennock, D.J., B.J. Zebarth, and E. DeJong. 1987. Landform classification and soil distribution in hummocky terrain, Saskatchewan, Canada. Geoderma 40(3-4):297-315.) has been added in the reference list of current manuscript.

**3. “Figure 3, 4 and 10.: In my opinion, under the scales, '0.5' label would better than '.5'.”**

Figures 3, 4, 10, and 11 have been revised by changing the scale bar label “.5” to be “0.5”.

**4. “Figure 4 Hard to differentiate the boundaries of the sub basin and hillslope unit.”**

The boundaries of subbasin and hillslope units are overlapped at the boundary of subbasin, which makes them hard to differentiate in the original manuscript. In current manuscript, the symbol of hillslope unit has been put above that of subbasin so that they could be differentiated by different colors and line widths.

**5. “Lines 81-83 For me, the expressions of slope position and landscape position are not synonyms with each other. In my opinion, the landscape position covers a larger unit with some function in a pre-defined landscape while the slope position only depends on the “conditions” of a hillslope.”**

We have adopted this suggestion and have revised the sentence to be “With respect to the first point, slope positions (also referred as landform positions) are...”.

**With regards to comments from Editor:****1. "Please resolve the acronyms at line 266"**

The meaning of NSE (Nash-Sutcliffe efficiency), PBIAS (percent bias), and RSR (root mean square error-standard deviation ratio) have been added in current manuscript.

**2. "563, 573, 627-630, 636, 638, 693 etc. no space between initials"**

All spaces between initials of authors in the references have been deleted.

**3. "659-661 reference should be restyled"**

The style has been corrected.

**4. "659, 682 Include "and""**

We have revised accordingly.