Hydrology and Earth System Sciences Discussions

Interactive
Comment

Interactive comment on "The snowmelt runoff forecasting model of coupling WRF and DHSVM" *by* Q. Zhao et al.

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We would like to thank the referee for his constructive comments. Below you will find our detailed responses and modifications to the text.

1) What are the background colors representing in Figure 1? The revised Figure1 gave what the background colors representing.

2) What is the soil parameter required in the hydrological model and what are the values for the soil parameter to match the different soil types shown in Figure 2?

The DHSVM soil data were based on three types of information: soil type, soil physical parameter (Lateral Conductivity, Exponential Decrease, Maximum Infiltration, Porosity,

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Bubbling Pressure, Field Capacity, Wilting Point, Bulk Density, etc) and soil depth. The added Table 1 lists some soil parameters.

3) What is the vegetation parameter required in the hydrological model and what are the values for vegetation to match the different vegetation types shown in Figure 3?

The DHSVM vegetation parameters include Height, Maximum Resistance, Minimum Resistance, Moisture Threshold, Vapor Pressure Deficit, Monthly leaf area index (LAI), Monthly Albedo, etc. The added Table 2 lists some vegetation parameters.

4) What are the numbers in Figure 4 representing?

The numbers are representing the stream order in Figure 4.

Please also note the Supplement to this comment.

Interactive comment on Hydrol. Earth Syst. Sci. Discuss., 6, 3335, 2009.