

## Comment on **essd-2020-391**

Anonymous Referee #1

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Referee comment on "Hydrometeorological dataset of West Siberian boreal peatland: a 10-year record from the Mukhrino field station" by Egor Dyukarev et al., Earth Syst. Sci. Data Discuss., <https://doi.org/10.5194/essd-2020-391-RC1>, 2021

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This manuscript provides a detailed description of the valuable hydrometeorological dataset of west Siberian boreal peatland, which is in general interesting to me. But this dataset includes only two sites and the content should be further discussed.

Comments:

- Line 39: replace "C" with "Carbon"
- Line 42: in the citation, it writes "the area of southern-taiga wetlands is estimated at 12.02 Mha at the total wetland area percentage in the subzone estimated at 28%", here in this manuscript, "Large peatland systems in Western Siberia occupy about 28% of the area", are wetland and peatland mean the same thing? Please give a clear description of peatland in the beginning.
- Line 44: "Only a few modern hydrometeorological datasets are available for the Northern part of Russia", in the citation of Bioke et al., 2019, the research study on a high Arctic permafrost site in the Svalbard archipelago, which is a disputed area.
- Line 69: "described in (Lamentowicz et al., 2015)". Please rewrite this part.

Line 71. "described by (Alekseychik et al., 2017)". Please rewrite this part

- Line 208: "South-south-east winds prevail at the observation site." But according to Fig. 6, south-south-west winds prevail at the observation site.
- Figure 1. Please redraw this figure, which should include a large area with local magnification. Map of peatland distribution is also suggested to include.
- In the supplement figures, uniform color in one figure is suggested. Figure S20, in the caption "Top panel: 1-hourly observations using rain gauge, 2-ERA5-Land reanalysis data", and in figure "Mod and Obs", they don't match each other.

