Reply to RC2 regarding manuscript:

Laboratory data on wave propagation through vegetation with following and opposing currents (essd-2021-180)

General comments

This manuscript provides a data set for two flume experiments that investigate the impacts of vegetation on wave dissipation in the presence of both current and wave. The data set is rich and should be valuable for future investigation of the impacts of vegetation on wave dynamics in coastal areas. The scientific contribution of the manuscript is weak because the difference between this study and previous studies is not clear. Consider that this is a data description paper, I think the paper may be a good fit after revision.

Reply:

We thank the reviewer for the overall positive evaluation of our dataset and the note on the scientific contribution of the manuscript. For the latter, we made the following action to clarify the contribution of the manuscript:

In the introduction, we state that although there are several studies on waves with following currents, there are relatively fewer studies concerning opposing currents. The recent experiment of Maza et al. (2015) did include opposing currents, but they only considered submerged canopies. Emergent canopies were not tested. Additionally, all these experiment datasets are not openly assessable to the public. Thus, we present a combined dataset composed of two flume experiments on WDV with underlying currents in both emergent and submerged conditions. Importantly, this combined dataset is now freely assessable to other researchers (Hu et al., 2020).

specific comments

I think the organization of the manuscript needs improvement. The manuscript mentions that the data sets include 668 tests. What are the conditions of each test? I think there should be a table on the conditions of each test and the measurements being made for each test as a summary of the data set? The conditions of the vegetation, e.g. modulus, size, submergence ratio, is not clear to find, at least for me. I think this information should also be summarized and the test conditions should be organized by categories.

Reply:

We thank the reviewer for these comments, which mainly concerning the clarity of the experiments. The conditions of each test are included in a summarizing table, i.e., Table B1. The vegetation conditions are included in the first paragraph of Section 2.1 and Section 2.2 for the two experiments, respectively. Furthermore, the tested wave conditions are now detailed as a separated section, i.e., Section 2.3, as suggested by the reviewer RC1.