Comment on egusphere-2022-122
Anonymous Referee #1

Referee comment on "Evaluating the applicability of a terrain-based floodplain delineation tool for a broad-scale assessment of flood exposure of tailings deposits" by Gabriel Pérez-Murillo et al., EGUsphere, https://doi.org/10.5194/egusphere-2022-122-RC1, 2022

Review of ‘Evaluating the applicability of a terrain-based floodplain delineation tool for a broad-scale assessment of flood exposure of tailings deposits’ by Perez-Murillo et al.

This is a very interesting paper. It is well-written and English clear. The project is well executed. There are no problems with the modelling and approach. Well done!

The amount of effort to do this work is clear.

However, I really struggled with the scientific novelty of this work. What is really scientifically new? While the paper is presented as research, it comes across as a consultancy. The big challenge I see for the authors is to present what the new science is?

The basics of the paper is a comparison of two models and their strengths and weaknesses. I need to be convinced that this is really a new finding. At the end of the paper it is not clear which model/approach is the best. So is SWIFT better or GFPLAIN?

I am recommending rejection with the authors encouraged to develop the work to provide new science insights.
Other issues

Abstract.

The Abstract reads quite negative. So is SWIFT better? What is the most appropriate approach?

The Introduction is excellent. Well done!