

The authors would like to express utmost gratitude for the time taken by the reviewers to assess and provide recommendations on how the manuscript can be improved. We have looked through each comment and have made changes as recommended with respect to all 31 comments. Below we list all the changes that have been made against the recommendations.

***Reference** refers to the line number in the updated track changes document.

Reviewer Comment	Action Taken	Reference *
Lines 17-18. "Traditional methods ... contemplated" The sentence is vague. (e.g. the meaning and objective of "river monitoring" is not defined (and suggested to be replaced with discharge estimation at other places?)).	We agree and have taken up the suggestion to replace the term 'river monitoring' with discharge estimation	Line 18
Line 18: "this UAV-system" is used without a clear definition.	We have added a brief description of the UAV-system to aid the reader to understand what we refer to.	Line 20-21
Line 19: "hence probably a more accurate flow discharge" relationship between "UAV-system" and "flow discharge" would be needed to be explained.	A sentence has been added prior to (L19) describing the UAV system	Line 19
Line 20: "accuracy is discharge" --> "accuracy in discharge"?	Changed from 'is' to 'in'	Line 22
Lines 70-72: The sentence needs to be clarified. (not limited but "the high resolution of UAVs", UAV is a platform and high resolution maybe the photo taken from, or the DEM provided from the photo, but not a direct product of UAV")	Statement has been corrected to clearly show that the high resolution is in reference to the images, not the UAV itself	Lines 78-79
Lines 109, consider removing the parenthesis if the meaning does not change.	Parenthesis have been removed	Line 120
Line 258-259, I think just putting labels "a" and "b" does not justify the separation of calibration and validation.	We have removed surface velocity from the validation process seeing that the justification was not adequate.	Line 265
Table 1: How was the discharge" obtained? (using ADCP? not clearly described in the method section where "flow measurement" had mentioned.)	In line 133 of the methods section we have clarified that the flow measurements were based on an ADCP	Line 143
The title of section 3 is "Results and discussion". After the concluding section, a new section without a number is added. I'm not sure if such a style is standard but I'm wondering if the discussion would be better before concluding the manuscript.	We have corrected the placement error by swapping around the position of discussion and conclusion	Lines 385-410

Maybe, re-editing the section 3 (as well as editing the section 4 reflecting the discussion) would be better to do.		
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Reviewer Comment	Action Taken	Reference *
L38 – I do not think that your study has applied low-cost technology to river monitoring. In-situ monitoring is cheaper. However, I understand that compared to other systems (for example, a plane with Lidar), yours is more economic. I think it would be good to clarify this in the sentence. Same in L361)	We have clarified in both occasions that the study provides insight into the use of advanced technologies (UAV and RTK GNSS devices) for river discharge estimation. We have removed the suggestion that the method is of lower cost than in-situ estimation	Lines 44-45
L40 – Here you talk about the validation process, but it is not very clear what it includes. It is worth adding a sentence explaining the methods (e.g., how calibration and validation were done).	We have added a sentence as suggested clarifying how calibration and validation were conducted.	Lines 46-47
L41- While the specific objectives are important to understanding the research, I do not think it is worth mentioning them in the abstract. It would be better to mention your overall aim. This will also give space to include the methods to understand the summary of the results.	We have removed the specific objectives as suggested and have added a brief summary of the method.	Lines 29-32
L107 – Please provide a summary of the method of Samboko et al. (2022) and then use the reference. If this is related to L110 please make it clear. Although it looks like L110 is related to Alvarez (2018).	A summary of the method used in Samboko (2022) has been added as suggested.	Lines 116-119
L136 – Use of a single set of parentheses “(D3DFM, Deltares, 2020)”.	We have now placed all the terms within one set of parentheses	Line 148
L157 – I don't see the point of using a subsection (also make it as "2.4.1" if you are including it).	We have removed the subsection as advised	Line 169

L160 – Same comment on Samboko et al. 2022. Include a summary here or above (L107).	A summary was added as per suggestion on (L107)*	Lines 116-119
L214 – Removed the extra dot before referring to Moriasi et al. (1983)	Error was noted and dot has been removed	Line 226
L219 – This sentence should not be in bold.	The sentence was indeed not supposed to be in bold. This has been corrected	Line 233
L220 – Tabulation. Maybe this is related to document conversion, please check final draft of the PDF before submitting.	Tabulation error has been noted and rectified	Line 234
L217 – Tabulation errors (same as previous comment).	Tabulation error has been noted and rectified	Line 234
L266 – Superscript error “-/13”. Also use for the Manning coefficient either “m-1/3 “ or “s/[m1/3]”.	Error has been corrected	Line 281
L266 – Table 2 shows the opposite, that means CM: 15.4% & LSPIV: 8.1%. Please check.	Swapping error has been corrected	Lines 281-282
L267 – I recommend using the same unit (do not convert) as in the table (i.e., 0.193 m instead of 19.3 cm). It makes it easy to quickly identify the value in the table.	Reverted to same unit as suggested. Using 0.193m now	Line 282
L272 – Change to “, with the lowest values of LSPIV (6.4%) and water levels (0.063 m) for 0.015 s/[m1/3] and 0.014 s/[m1/3], respectively”.	Sentence has been adjusted as suggested	Line 287
LL273 – Don't highlight the row in the table, use a subscript (eg *) and add a sentence below the table like “* the selected optimal roughness coefficient”.	Highlight has been removed and subscript has been applied instead.	Line 279
L275 – I think the validation by visual analysis is not as robust as a quantitative method. However, you can justify and discuss the reasons the selected method. This is important.	A brief discussion and justification has been added to the text as advised.	Lines 300-304
L281 - I don't see a discussion of the calibration and validation processes. He mentioned in the summary that there is a need for more on-site monitoring in the	A brief discussion on the calibration and validation process has been added to the text	Lines 291-295 and Lines 301-304

<p>future, but why is not covered in this section. It is important to do it.</p>		
<p>L402 – The discussion must be before the conclusion section. Also, if you are adding a discussion section, remove “discussion” it from section 3 (3 Results and Discussion, L243).</p>	<p>We have swapped the position discussion and conclusion as suggested. The result and discussion title has also be appropriately renamed</p>	<p>Lines 385-410</p>
<p>Figure 8 – Missing a parenthesis.</p>	<p>Parenthesis has been added</p>	<p>Line 630</p>
<p>In general, italics are used to reference figures and tables. I don't recall this being part of the journal's formatting and editing requirements. Remove the italics. Also, the table formats are not consistent (.e.g. Table 1 vs Table 2). Sections and subsections do not follow the same format, some of them are case sensitive sentences, others are not (e.g., 3.1 vs 3.2) the same goes for figures and tables (L273 vs L296).</p>	<p>All italics on the figures and tables have been removed. All other inconsistencies have been corrected</p>	