

Interactive comment on “The river absorption capacity determination as a tool to evaluate state of surface water” by Paweł Wilk et al.

Anonymous Referee #2

Received and published: 4 September 2017

General comments: The manuscript by Wilk et al. proposes the concept of absorption capacity of the river as a new tool to evaluate surface water status. The concept is really interesting and potentially very useful in watershed management. However, the description of the applied method is quite confusing, and written in an awkward English language which makes difficult to understand the presented findings and conclusions. I recommend clarify necessary issues. More details in the specific comments.

Specific comments: 1. To make the whole concept understandable for the audience from the zone where WDF is not a legally binding act, the terms of: “limit load”, “good status”, and “critical load” should be explained. 2. The equation 1.9 gives 6 components to the actual load AL calculation at the control profile, however it is not clear how the Authors approached these components besides loads from the point and nonpoint

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sources – please explain. 3. The results of calibration, verification, and validation for total phosphorus are not very encouraging. Since, the Authors decided to use them nevertheless, the discrepancies should be incorporated in the results and discussion section. 4. The source of the flow data should be revealed in the manuscript. 5. The use of terms absorption and absorbency should be verified in the text. 6. The equations and description of particular parameters requires verification; eg. parameter CL “actual load” used in equation 1.2 has been previously described as “critical load”(line 155); parameter n used in the equation 1.5 is not clearly described – what does it mean “set of major flows” (line 187)? 7. Please, consult your final version of the manuscript with a native speaker, also some editorial work on the text is suggested (eg. references in lines 58, 535; figure in line 252, etc).

Interactive comment on Hydrol. Earth Syst. Sci. Discuss., <https://doi.org/10.5194/hess-2017-440>, 2017.

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