

## ***Interactive comment on “Rapid surface water volume estimations in beaver ponds” by Daniel J. Karran et al.***

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Thank you for the opportunity to review the draft manuscript “Rapid surface water volume estimations in beaver ponds” by Daniel J. Karran, Cherie J. Westbrook, Joseph M. Wheaton, Carol A. Johnston, and Angela Bedard-Haughn. I found this article to be a very interesting description of a method for determination of storage in beaver ponds using a minimum of input information. The authors make a compelling argument for this method with examples. I found this draft to be very clean and well written. Please consider the following comments.

1. eqn 8: Just to be clear about where equation 8 came from, add: “For ease of visual interpretation, equations 6 and 7 can be combined as:” 2. eqn 9: Is this correct? If eqn 8 is substituted into eqn 9, you get  $RD = RD^p/2$  3. p 5, ln 5 – I don’t understand the

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statement “thereby eliminating issues of scale and aiding in the analysis of error.” 4. eqn. 10 – define  $V_{land}$ . Also, add more description to the paragraph starting at page 5, line 6. It is hard to understand BI just by reading the text (e.g. what is the “reference solid” that you refer to). I had to refer to Strahler, 1952 to understand this paragraph. 5. table 1 – what is the column “n” in the table? I assume number of ponds at the site.

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