August 28, 2023

Editor
PLOS ONE

Dear Editor in Chief,

Enclosed please find our manuscript, titled 'MassWateR: Improving quality control, analysis, and sharing of water quality data', to be considered as a research article in PLOS ONE. Please consider this article as a software submission.

Water quality data are collected by thousands of different organizations and a continuing challenge is to ensure these data are of sufficient quantity and quality for their intended applications. This open source package automates several routine processes that will improve how these valuable data are used to protect and restore aquatic resources. The MassWateR package includes automated tools to facilitate quality control and to generate summarized reports of the results for review by appropriate regulatory agencies. Functions are also provided for analysis of these data and for submission to the USEPA Water Quality Portal, the largest water quality database in the United States. Many of these tasks are conventionally done by hand and MassWateR provides the necessary tools to automate these processes in a reproducible workflow. Although the package was initially developed to address specific user needs in the US state of Massachusetts, the principles can be applied by any monitoring group and we highlight the generality of the package in our article.

This article has no prior interactions with any PLOS journals. Appropriate handling editors could be Drs. Ramon Antonio Rodriges Zalipynis, Sani Isah Abba, or Giancarlo Succi. We greatly appreciate the opportunity to publish this work in PLOS ONE and are confident readers will consider this software package a valuable contribution. Please feel free to contact us directly should additional information be needed.

Regards,

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