From: Ashantha Goonetilleke

Sent: Saturday, 11 October 2014 18:37

To: isri.mangangka@unsrat.ac.id; isrimangangka@hotmail.com

Subject: FW: Manuscript JEMA-D-14-00838

Dear Isri

Good news. One of your paper has been accepted for publication by the Journal of Environmental Management. This is a high impact journal. It has an impact factor much higher than Water Science and Technology.

Kind regards

Prof. Ashantha Goonetilleke | Science and Engineering Faculty | Queensland University of Technology | GPO Box 2434, Brisbane, Queensland 4001, Australia | Tel. <u>+61 7 3138 1539</u> | CRICOS No. 00213J |

Research profile | Research publications | Google Scholar citations | Linkedin

----Original Message-----

From: An Liu [mailto:liuan1109@hotmail.com] Sent: Saturday, 11 October 2014 2:39 PM

To: Ashantha Goonetilleke

Subject: FW: Manuscript JEMA-D-14-00838

Dear Sir,

Good news. One of Isri's papers is accepted, requiring some revision. I will attend these comments asap.

Regards

An

----Original Message-----

From: ees.jema.9b08.2c7f1f.569fa249@eesmail.elsevier.com

[mailto:ees.jema.9b08.2c7f1f.569fa249@eesmail.elsevier.com] On Behalf Of David Schaad

Sent: Friday, October 10, 2014 10:53 PM

To: liu.an@sz.tsinghua.edu.cn

Subject: Manuscript JEMA-D-14-00838

Ms. Ref. No.: JEMA-D-14-00838

Title: Performance characterisation of a stormwater treatment bioretention basin Journal of Environmental Management

Dear Dr. Liu,

Following this message are the reviews of the above-referenced manuscript. We'll be pleased to accept this paper for publication after it's been revised in accordance with the reviewers' comments.

Due to space limitations in the printed journal, we are requesting that all authors reduce the length

of their papers by at least 10% if possible. If your paper includes large tables or datasets, it is preferred that these be published as supplementary material in Science Direct rather than in print. Further information is provided at the end of this message.

With the revised manuscript, please provide a detailed response to the reviewers' comments, indicating how each comment is addressed in the revised manuscript. If you disagree with any of the reviewers' comments, please address them in a rebuttal.

To submit a revision, please go to http://ees.elsevier.com/jema/ and login as an Author.

Your username is: liu.an@sz.tsinghua.edu.cn

If you need to retrieve password details, please go to: http://ees.elsevier.com/JEMA/automail_query.asp

NOTE: Upon submitting your revised manuscript, please upload the source files for your article. For additional details regarding acceptable file formats, please refer to the Guide for Authors at: http://www.elsevier.com/journals/journal-of-environmental-management/0301-4797/guide-for-authors

When submitting your revised paper, we ask that you include the following items:

Manuscript and Figure Source Files (mandatory)

We cannot accommodate PDF manuscript files for production purposes. We also ask that when submitting your revision you follow the journal formatting guidelines. Figures and tables may be embedded within the source file for the submission as long as they are of sufficient resolution for Production. For any figure that cannot be embedded within the source file (such as *.PSD Photoshop files), the original figure needs to be uploaded separately. Refer to the Guide for Authors for additional information.

http://www.elsevier.com/journals/journal-of-environmental-management/0301-4797/guide-for-authors

Highlights (mandatory)

Highlights consist of a short collection of bullet points that convey the core findings of the article and should be submitted in a separate file in the online submission system. Please use 'Highlights' in the file name and include 3 to 5 bullet points (maximum 85 characters, including spaces, per bullet point). See the following website for more information http://www.elsevier.com/highlights

Graphical Abstract (optional)

Graphical Abstracts should summarize the contents of the article in a concise, pictorial form designed to capture the attention of a wide readership online. Refer to the following website for more information: http://www.elsevier.com/graphicalabstracts

On your Main Menu page is a folder entitled "Submissions Needing Revision". You will find your submission record there.

PLEASE NOTE: The journal would like to enrich online articles by visualising and providing

geographical details described in Journal of Environmental Management articles. For this purpose, corresponding KML (GoogleMaps) files can be uploaded in our online submission system. Submitted KML files will be published with your online article on ScienceDirect. Elsevier will generate maps from the KML files and include them in the online article.

Please note that this journal offers a new, free service called AudioSlides: brief, webcast-style presentations that are shown next to published articles on ScienceDirect (see also http://www.elsevier.com/audioslides). If your paper is accepted for publication, you will automatically receive an invitation to create an AudioSlides presentation.

The revised version of your submission is due by Nov 24, 2014.

Yours sincerely,

David Schaad Associate Editor Journal of Environmental Management

P.S. Elsevier now accepts electronic supplementary material to support and enhance your scientific research. Supplementary files offer the author additional possibilities to publish supporting applications, movies, animation sequences, high-resolution images, background datasets, sound clips and more. Supplementary files supplied will be published online alongside the electronic version of your article on Science Direct at http://www.sciencedirect.com. In order to ensure that your submitted material is directly usable, please ensure that data are provided in one of our recommended file formats. Authors should submit the material in electronic format together with the article and supply a concise and descriptive caption for each file. For more detailed instructions please visit our artwork instruction pages at the Author Gateway at http://authors.elsevier.com/artwork.

Reviewers' comments:

Reviewer #2: General Comments

I like this paper and the approach taken to evaluate the effectiveness of treatments intended to manage pollutants in storm waters. More tools of this type are needed to better discern which hydrologic and hydraulic variables, climatic conditions, and treatment variables are having the greatest impact so that effective management strategies can be better targeted to address such problems.

The manuscript is generally well-prepared, but needs to be made clearer in a few places. There is also some redundancy that should be minimized and unnecessary words should be removed. The use of abbreviations should be minimized. Some suggestions are offered under Specific Comments, along with a few specific questions and comments.

Specific Comments

P2L5: Words such as "therefore" are rarely needed.

P2L10: A more direct and succinct statement would be better, such as "Hydraulic and hydrologic factors impacting pollutant removal by a bioretention basin were assessed under field conditions."

P2L15: "Outcomes of the study confirmed..."

P2L25-32: "Pollutant leaching influences bioretention basin treatment performance, reducing nutrient removal efficiency, which was lower for high rainfall events." A concluding statement at the end of the abstract would be helpful.

P3L15: "Researchers using..."

P3L25-60: Most of this information on the use of PROMETHEE should be presented in the Materials and Methods section.

P4L28-30: A statement such as "A correlation matrix was developed to identify correlating factors" should follow the description of PROMETHEE in the Materials and Methods section. Suggest beginning here with "The correlation matrix showed..."

P9L25: "...separately evaluated by PCA."

P10L41-54: This section is a bit confusing. Is everything properly stated? Seems like lower rainfall depth should result in a larger runoff volume, while greater rainfall depth would produce less runoff. P12L19-23: It would be helpful to say why this might be true. Is it due to differences in oxygen content?

P12L34-37: How does nitrification remove pollutants? How does it remove nitrogen?

Reviewer #3: The Manuscript JEMA D-14-00838 is a well written paper about the performance of small bioretention basin for urban runoff. I think that authors perform an interesting work which combines some numerical modelling, and extensive field work and also a good statistical analysis of their results. From my point of view, the paper can be published after some minor revisions:

- 1. I think that authors should cite the use of the numerical model for the bioretention basin in the last paragraph of the introduction (Page 3 4).
- 2. At M&Methods section, a brief description of the sizing criteria of the bioretencion basin is missing. For instance the design storm, surface, mean depth, maximum wetted surface and the net storage volume (m3/impervious surface) 3. Regarding the Development of the conceptual model, I think that authors should provide more information about the model performance. In the manuscript, the PhD Dissertation of the corresponding author is cited. Nevertheless, as the model outputs (treated volume, wetted area, peak discharge) are really relevant parameters in statistical analysis of Results sections I think that the model performance is a key point of the analysis. I suggest to authors to include some aspects regarding the model parameters sensitivity, model calibration, ...
- 4. At Results and Discussion section I think that PROMETHEE analysis is a bit weak. I really don't understand the objective of this technique, the inputs and the outputs of the model, or how useful it is for the following methodology. For instance, the sentence "In the PROMETHEE method, (...) range of variable" (PG.7.LN40) is difficult to understand. As I really don't understand the meaning of the PHI function, the discussion presented at Page 8, Ln 3-23 is hard to follow. I think that authors should explain better this decision making method to make it more useful for a broad audience.
- 5. The correlation matrix (page 8 Ln 28) is a Pearson or a cross-correlation (linear least-square) matrix? Which is the confidence level of the Pearson analysis?
- 6. I think that PCA section is really interesting and well documented.
- 7. The last section about the pollutant removal in load and EMC is also well presented. Nevertheless, I miss here a comparison of the author's results with similar bioretention units. Maybe, authors can add a row with some literature range at table 4.

Furthermore, authors can explore new methods to estimate the performance of the bioretention unit using some statistical methods such as the explained in the bmpdatabase.org. But maybe, this could be an analysis for a following work

Minor comments:			
Pg.2.Ln5.Maybe is better	r "discharges"	ˈthan "parame	eters'

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