

Hydrol. Earth Syst. Sci. Discuss., referee comment RC2  
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## **Comment on hess-2021-143**

Anonymous Referee #2

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Referee comment on "Sources and pathways of biocides and their transformation products in urban storm water infrastructure of a 2□ha urban district" by Felicia Linke et al., Hydrol. Earth Syst. Sci. Discuss., <https://doi.org/10.5194/hess-2021-143-RC2>, 2021

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Title: " Sources and pathways of biocides and their transformation products

in urban water infrastructure of a 2 ha urban district"

Journal: Hydrology and Earth System Sciences

The authors present a study to identify potential sources and entry pathways of commonly used biocides in urban environments. The study also includes the emission and identification from some biocides transformation products. The author not only identifies facades as biocide source, but also other sources like roofs and rain downpipes and roads. The authors identify leaching potential sources which can infiltrate into the soil and can be harmful for the environment in considerable loads. The subject is important and the adopted approach is relevant. Globally the manuscript presentation could be improved; here after the authors can find suggestions to this end.

### **Abstract**

Line 18-20: This sentence is very difficult to read please divide it into two sentences.

Line 23-24: Revise the sentence syntax, very difficult to read.

Line 25: Delete "for" after "allows".

## **Introduction**

Line 40-44: Please divide these sentences into two or several sentences, is too difficult to read.

Line 46-47: This information is already included in Table 3, please delete.

Line 50: Delete "for example"

Line 57: Delete the comma, instead place TPs in parenthesis.

Line 57-58: This sentence should be at the end of the paragraph.

Line 77: Geometry?

Line 81: "Studies have confirmed..."

Line 86: Please delete the comma and better add swale-trench system in parenthesis.

Line 88-89: This sentence is very difficult to read.

## **Methods**

Line 109-110: MEC/PNEC where chosen for what? Which criterion? Relevance threshold?

Line 115: Please add coordinates

Line 126-128: Please add here the total facade area if possible, or size of the buildings and roof top total area approx. Its important to have an idea of the biocide loads from each of the buildings or from the total building complex.

Line 131-134: Please add the pipeline/drainage material.

Line 152-155: Please add the total amount of samples within the test period.

Line 180: Is this leaching test out of norm/standard (i.e DSLT) or it is a self fabricated test? If it is, please argue why you do the leaching test that way.

Line 195: Instead of "measurement" use "analysis".

Table 3: Please add water solubility, half-life time, molecular mass and lethal dose.

## **Results**

Line 245: "There, diuron showed maximum concentrations of..."

Line 255: Please add weather data elsewhere in studied area/sampling site (methods section). Here you argue about weather conditons in the area but there is no information of it prior this argumentation.

Section 3.2.1: Does the impinged water volumes have an influence in the leaching

concentrations? All the facades received the same amount of water? Are collected runoffs in the same order? It is important to mention this since the leaching amount of substances is also dependant on the contact water volume. Higher the runoff volume, higher the substance load.

Please mention in this section something about the contact water volume, it is an important parameter into consideration when talking about substance leaching of facades.

Consider biocide loads ( $\text{mg}/\text{m}^2$  or  $\mu\text{g}/\text{m}^2$ ) in this section, since this measurement is important for environmental evaluation properties of any construction site.

Line 421: Please delete "Again"