

Title: Rapid assessment of abrupt urban mega-gully and landslide events with Structure-from-Motion photogrammetric techniques validates link to water resources infrastructure failures in an urban periphery.

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Editor comments:

Comments to the author:

Dear Authors,

one of the referees has reassessed your manuscript, suggesting now to publish it as it is.

On the other hand, I have read the manuscript as well and I think that the manuscript may benefit from a few of minor improvements, which I list in the following:

- L 22 you write that "we provide the FIRST-EVER detailed documentation of this process in an urban environment". I think that perhaps this is a quite strong statement. I would add at least "to the knowledge of authors" or rephrase in "one of the FIRST". This is valid also for other parts of the manuscript

Agreed. This has been revised in the two (and only) places where similar language was used.

Lines 20-22:

“water main breaks resulted from rainfall-driven gully erosion that undermined supply lines, and the resulting water jets caused abrupt mega-gully formation; this represents one of the first studies to document this process in an urban environment;”

Line-421-422:

“This study represents one of the first instances where abrupt mega gully formation by water infrastructure failure has been documented in an urban environment”

- L 194 You state that return period of triggering events is about 1-2 years. Please make more clear how the return period has been estimated

This text has been revised as follows:

Mass movement from WRIFs were observed during three of these events, each characterized by a 1-2-year return period based on precipitation depth frequency information reported by NOAA Atlas 14 for nearby Imperial Beach, California (NOAA, 2021).

- After section 3.1 there is only an isolated sentence, which I think could be removed (in other words, please revise paper structure on this point)

This comment has been addressed and the overall paper structure has also been revised.

- L 452 (two-step process) These are just plausible hypotheses, which have not been directly observed, so perhaps better “dampen” these parts

We agree. We have softened our conclusions by stating that “we conjecture that”

- Conclusions are mainly qualitative, perhaps they can be improved by adding some quantitative statements

We have revised and slightly reorganized the conclusions to include additional quantitative statements.

I have also been informed about your intention to update the authors' list. You can do so while resubmitting your manuscript with the revisions I've listed above.

Thank you.

I am looking forward to receiving your revised manuscript.

Best regards,

David J. Peres